

Modern packaging

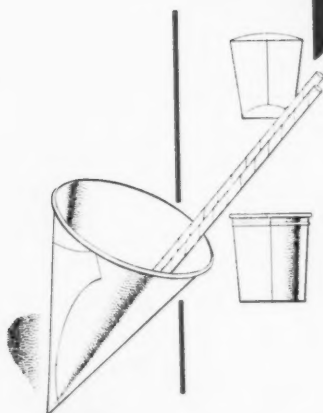


Nominated for *Packaging's Hall of Fame*. Story on Page 104

June 1950



Having wet bottom trouble?



A wet bottom — on a baby or a paper cup — means just one thing. A quick change! For paper cups it's National's synthetic RESYN[®] adhesives. They're far more successful than vegetable or animal base glues. They're inherently resistant to water. Properly formulated into adhesives by National's process, their bond once set will not break-down.

National's synthetic RESYN adhesives provide a final bond that withstands prolonged contacts with hot or cold liquids without leakage . . . is non-toxic, odorless, solventless . . . quick-tacking, fast-drying, non-staining . . . stronger than the toughest paper . . . yet, as flexible as tissue.

National
ADHESIVES

Address: 270 Madison Ave., NEW YORK 16; 3641 So. Washtenaw Ave., CHICAGO 32; 735 Battery St., SAN FRANCISCO 11, and other principal cities. In CANADA: National Adhesives (Canada) Ltd., TORONTO and MONTREAL. In ENGLAND: National Adhesives, Ltd., SLOUGH.

EVERY TYPE OF ADHESIVE
FOR EVERY INDUSTRIAL USE

We've got a 'wet bottom' job adhering

☐ Please have a National representative call on

Mr.

Company

Address

City

Zone State



Modern packaging



Vol. 23 No. 10 June 1950

GENERAL

The fractional package 91
Multiple packaging has taken an interesting reverse tack: now the standard package is divided into smaller, protected units.

Triple-sealed cigars 96
In a bold break with tradition, Phillies drops the box and banks on three cellophane wrappings to preserve freshness.

Life to the lobster 100
New packaging tricks include a method of canning whole lobsters that keeps them alive and kicking 16 days. By ROBERT C. SCHEID.

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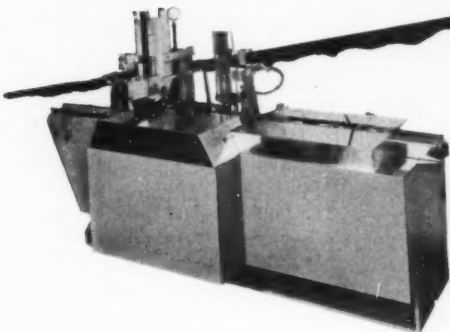
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Lever Bros., Ltd., Toronto

makers of famous

GOOD LUCK MARGARINE



to assure proper handling
of their outstanding product—

they rely on

REDINGTON

This is the machine Redington built for proper—
and profitable—cartoning of Good Luck Margarine

THE PROBLEM WITH MARGARINE

Margarine is soft and needs very careful handling. To prevent crushing or deforming, a machine had to be devised that could insert the half-pound Good Luck Margarine prints directly into the cartons.

In addition, Margarine plants are damp. Margarine itself contains brine waters, fatty acids, and lactic acids. These conditions are conducive to rust and corrosion of machinery, and extreme caution must be taken to avoid them.

REDINGTON ENGINEERED THE ANSWER:

To assure rapid, sanitary cartoning of the margarine with a minimum of handling, Redington engineers produced a machine which is somewhat unique, in that it is more like a standard cartoning machine than the usual type oleomargarine machine. The new machine (shown) is finely designed and ruggedly built as are all Redington continuous loading cartoning machines. However—because it is used for handling margarine—vast quantities of stainless steel, nickel alloy, and other non-corrosive metals are used.

OPERATION IS AUTOMATIC—AND AS EASY AS THIS:

One-half pound prints of margarine are produced on a printing and wrapping machine. After being wrapped in foil, these prints are fed directly onto the intake conveyor of the Redington cartoning machine, which has regular end opening cartons stacked in a magazine. Color wafers are stacked in two other magazines. The machine feeds a carton from the magazine . . . expands it into shape . . . inserts two wrapped prints of margarine . . . feeds a color wafer from each of the two wafer magazines . . . places the wafers in the carton . . . and then closes the carton by tucking in the end flaps. The speed of the Redington cartoning machine: 120 cartons per minute—cartons of wholesome, sanitary Good Luck Margarine that quickly find their way to the housewife's table.

LET US SOLVE YOUR CARTONING PROBLEM!

Whatever your problem—large output or small—special handling or conventional—Redington, with over 53 years of leadership experience, is sure to have a tested method of machine that will solve it. Our engineers will be glad to advise and estimate at any time. Write us.

F. B. REDINGTON COMPANY (Est. 1897) 110-112 S. SANGAMON STREET, CHICAGO 7, ILLINOIS

1897 **REDINGTON** 1950
53 Years of Packaging Leadership

AUTOMATIC CARTONING • WRAPPING • SPECIAL PACKAGING



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HOLD ON, NOW

THE WAVE OF ENTHUSIASM for polyethylene at the recent Packaging Show was a little too strong to be healthy. Many visitors apparently came away feeling that polyethylene is a miracle material, able to solve any and all packaging problems at a snap of the fingers.

There was the suggestion, for example that polyethylene film was going to take over the bread-wrap business and preserve freshness marvellously for many days. There are several things wrong with this prognosis. First, there is still no high-speed bread-wrapping and sealing machine that can handle soft polyethylene film. Second, printing on polyethylene, although constantly improving, is still not first class. Third, the freshness idea seems to be part of a widespread fallacy about the water-vapor and gas-transmission qualities of polyethylene.

The fact is that a flat (uncreased) sample of commercial 1½-mil polyethylene film will transmit about twice as much water vapor as a good grade of moistureproof cellophane when both samples are tested under standard conditions at 100 deg. F. Polyethylene improves as temperatures drop and is a terrifically good WVP barrier at zero F. and below—which makes it important to frozen-food packers.

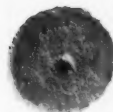
Polyethylene is readily permeated by most gases, including carbon dioxide and oxygen, and is oddly selective in its resistance to various greases and aromatics—excellent for some, very poor for others. You can't assume that because polyethylene has been tested and found suitable for one product it will be equally suitable for another, however similar. No reputable supplier will knowingly permit a misapplication, but some serious mistakes have been made by packagers who failed to provide the proper test data for each product. Test—to be sure!

The many wonderful qualities of polyethylene—its strength, flexibility, inertness, non-toxicity, lack of odor, economy and low-temperature characteristics—have been pointed out so often in these pages that we are here rising only to speak a word of caution. It is *not* "better for everything." But if properly applied it can be one of the most important new packaging materials in many years.

The Editors

ADVERTISING on the one-inch line

With advertising costs of all kinds on the rise, with smart competitors fighting for every unit of sale, the way your product is presented to the ultimate buyer becomes of paramount importance. What use to buy handsome, colorful illustrations on your printed pages and then fail to carry the same attractiveness to your product itself.



Certainly, there's nothing alluring about inner soles for shoes, or a cleaning pad for power tool. But the makers of these products have made them attractive by impact packaging that suggests to the casual shopper that here's something he wants. That's point-of-sale advertising at its finest — and it rings the cash register.

Colorful bag sells Heel Guards

No longer is it sufficient to pile up unwrapped merchandise on the counters and hope the customer will see it — and buy it. There's nothing very attractive about a heel guard for the floor of an automobile. It's a utilitarian product, completely. But wrap it in a colorful bag, that displays the item and tells what it's for — and sales pick up.

That's because the final punch of the advertising is delivered right at the point of sale. The package design itself can be your advertising campaign.

Impact packages ring the cash register

Seeing them unwrapped on a counter, who would know that bright strips of sheet aluminum, flapping in the wind, serve as scarecrows in the garden? But the transparent, printed bag tells the story at a glance, and they sell.

No matter what the item, whether it's colorful or dull, a luxury product or utilitarian, it gains beyond measure in display value and sales impact when it's attractively and transparently packaged. If you'd like some examples of what impact packaging has done to increase sales velocity, just write to The Dobeckmun Company, Cleveland 1, Ohio or Berkeley 2, Calif.



You pack 'em **IN...** buyers pack 'em **OUT!**

Most any product gets some action on crowded counters when it's colorful in itself. But sales speed up, especially for drab, commonplace items, when you add the allure of a gaily decorated, compelling, transparent bag or wrapping, by Dobeckmun. You gain that extra punch that tempts buyers to pick them up and carry them out.

A fine printed picture on the front can show your product in use, with instructions and selling copy. Prominent display of brand name and trademark makes advertising more effective and builds repeat sales. The shopper can see, through the back, the size, shape, color, other qualities. This combination sells millions of units every day for Dobeckmun customers.

Protection? Of course, to guard against damage and shop wear that cause markdowns and lost profits. When the bag is opened, contents are in the same top condition as when packed.

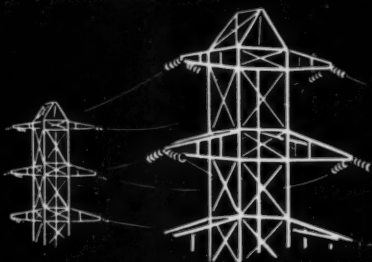
For workable suggestions on how Dobeckmun printed, transparent packages of any size or shape can wrap up sales for you, just write us and send product samples. *The Dobeckmun Company, Cleveland 1, Ohio. Berkeley 2, California.*

Branches at Atlanta, Boston, Chicago, Cincinnati, Detroit, Indianapolis, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, St. Louis, St. Paul and Seattle.

Representatives everywhere.



From Kilowatts



To Kitchen Aids



OXFORD PAPERS

HELP BUILD SALES

WHETHER THEIR purpose is to build profitable load for a utility company or increase the sale of appliances, you can gain effectiveness for your printed selling aids through the use of Oxford Papers. For every one of these widely used papers has a proved record for top-notch results—and the range of Oxford grades covers every need for offset, lithography, letterpress or rotogravure printing.

It Pays to Remember—and Use Oxford Papers

(Here are a few)

- Duplex Label
- Mainelex C1S Litho
- English Finish Litho
- Polar Superfine Enamel
- Mainefold Enamel
- Engravatone Coated



Your Oxford Paper Merchant is a Good Man to Know

You can count on your Oxford Paper Merchant for prompt service—and the kind of friendly, practical know-how that will make it easier to be sure of the right paper for your particular needs. Get in touch with him today for a copy of the helpful *Oxford Paper Selector Chart*, or write direct to us.

OXFORD PAPER COMPANY

290 Park Avenue, New York 17, N. Y.

OXFORD MIAMI PAPER COMPANY

35 East Wacker Drive, Chicago 1, Ill.

MILLS AT RUMFORD, MAINE, AND WEST CARROLLTON, OHIO

Nation-wide Service Through Oxford Paper Merchants

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Atlanta, Ga.	Wyant & Sons Paper Co.
Augusta, Maine	Carter, Rice & Co. Corp.
Baltimore, Md.	The Mudge Paper Co.
Bethlehem, Pa.	Wilcox-Walter-Furlong Paper Co.
Boise, Idaho	Blake, Moffitt & Towne
Boston, Mass.	Carter, Rice & Co. Corp.
Buffalo, N. Y.	Franklin-Cowan Paper Co.
Charlotte, N. C.	Caskie Paper Co., Inc.
	The Charlotte Paper Co.
Chattanooga, Tenn.	Bond-Sanders Paper Co.
Chicago, Ill.	Bermingham & Prosser Co.
	Bradner, Smith & Co.
	The Whitaker Paper Co.
Cincinnati, Ohio	The Johnston Paper Co.
	The Whitaker Paper Co.
Cleveland, Ohio	The Cleveland Paper Co.
Columbus, Ohio	Scioto Paper Co.
Dayton, Ohio	Cincinnati Cordage Co.
	The Whitaker Paper Co.
Des Moines, Iowa	Bermingham & Prosser Co.
Detroit, Mich.	Chope Stevens Paper Co.
Fresno, Calif.	Blake, Moffitt & Towne
Hartford, Conn.	Green & Low Paper Co., Inc.
Indianapolis, Ind.	MacCollum Paper Co.
Jacksonville, Fla.	Jacksonville Paper Co.
Kalamazoo, Mich.	Bermingham & Prosser Co.
Kansas City, Mo.	Bermingham & Prosser Co.
Knoxville, Tenn.	Louisville Paper Co.
Lincoln, Neb.	Western Newspaper Union
Little Rock, Ark.	Roach Paper Co.
Long Beach, Calif.	Blake, Moffitt & Towne
Los Angeles, Calif.	Blake, Moffitt & Towne
Louisville, Ky.	Louisville Paper Co.
Lynchburg, Va.	Caskie Paper Co., Inc.
Manchester, N. H.	C. H. Robinson Co.
Memphis, Tenn.	Louisville Paper Co.
Miami, Fla.	Everglades Paper Co.
Milwaukee, Wis.	Allman-Christiansen Paper Co.
	Sensenbrenner Paper Co.
Minneapolis, Minn.	Wilcox-Mosher-Lefholm Co.
Nashville, Tenn.	Bond-Sanders Paper Co.
Newark, N. J.	Bulkley, Duntion & Co., Inc.
New Haven, Conn.	Bulkley, Duntion & Co., Inc.
New York, N. Y.	Baldwin Paper Co., Inc.
	Bulkley, Duntion & Co., Inc.
	Green & Low Paper Co., Inc.
	Miller & Wright Paper Co.
	The Whitaker Paper Co.
Oakland, Calif.	Blake, Moffitt & Towne
Omaha, Neb.	Western Paper Co.
Philadelphia, Pa.	Atlantic Paper Co.
	Wilcox-Walter-Furlong Paper Co.
Phoenix, Ariz.	Blake, Moffitt & Towne
Pittsburgh, Pa.	General Paper Corp.
	Brubaker Paper Co.
Portland, Maine	C. H. Robinson Co.
Portland, Ore.	Blake, Moffitt & Towne
Providence, R. I.	Carter, Rice & Co. Corp.
Richmond, Va.	Caithorne Paper Co.
Rochester, N. Y.	Genesee Valley Paper Co.
Sacramento, Calif.	Blake, Moffitt & Towne
St. Louis, Mo.	Shaughnessy-Kniep-Hawe Paper Co.
	Tobey Fine Papers, Inc.
St. Paul, Minn.	Inter-City Paper Co.
San Bernardino, Calif.	Blake, Moffitt & Towne
Salt Lake City, Utah	Western Newspaper Union
San Diego, Calif.	Blake, Moffitt & Towne
San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
Sioux City, Iowa	Western Newspaper Union
Spokane, Wash.	Blake, Moffitt & Towne
Springfield, Mass.	Bulkley, Duntion & Co., Inc.
	(Div. of Carter, Rice & Co. Corp.)
	Mill Brand Papers, Inc.
Stockton, Calif.	Blake, Moffitt & Towne
Tacoma, Wash.	Blake, Moffitt & Towne
Tampa, Fla.	Tampa Paper Co.
Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
Washington, D. C.	The Mudge Paper Co.
Worcester, Mass.	C. A. Esty Paper Co.
	(Div. of Carter, Rice & Co. Corp.)

"it's IN THE BAG" *Farley* -SAYS

"OUR distinctive, colorfully printed family style packages have won customer appeal wherever Farley candy is on sale. We have found out that good packaging is vitally important to our business."

Traver experts have had long years of experience in all phases of flexible packaging. If you are planning a new package or a re-design of an old one why not discuss your problems with us? There is no obligation—Call your Traver representative today.



Sales offices in
Chicago, Denver, New York, Philadelphia,
Pittsburgh, Cleveland, Kansas City,
St. Louis, Dallas, Detroit, Oakland.

Traver

C O R P O R A T I O N

366 W. ONTARIO STREET CHICAGO 10, ILL.
CONVERTERS AND PRINTERS OF CELLOPHANE, PLIOFILM, PLASTICS, ACETATES, FOIL AND GLASSINE



making things
Crystal clear!

Crystal cellophane dresses up candy canes for Xmas sales gains

These Crystal cellophane tubes give your product an allure that people just can't resist during the heavy Xmas impulse-buying period. The sparkling clear, "eye and buy appeal" that surrounds your candy canes assures your product a "front row center" position during the big-volume holiday season.

These cellophane tubes may be had in these beautifully printed stock designs with your name and ingredients, or they may be had in plain, unprinted form, or with special designs. Available in all the popular sizes. Be sure to write for full information about these handsome cellophane items in the broad Crystal line of quality products. Why not call or write today?



CRYSTAL TUBE CORPORATION

531 SOUTH WELLS ST., CHICAGO 7, ILLINOIS •
DEPT. MP-6

Branch Offices in New York, Philadelphia, St. Louis, Minneapolis, Detroit, Louisville and Dallas

Plain and printed CELLOPHANE BAGS, ENVELOPES, TUBES, POUCHES • Printed CELLOPHANE, FOIL and GLASSINE ROLLS and SHEETS • Holiday BANDS • CELLOPHANE and PLIOFILM Utility ROLLS • PLIOFILM and POLYETHYLENE BAGS • Rigid ACETATE CONTAINERS



Nature does it Well...

West Carrollton GENUINE VEGETABLE Parchment

does it Better!

Natural flavor is protected by nature for a short time only. West Carrollton Genuine Vegetable Parchment protects foods as long as necessary. It is ODORLESS, TASTELESS, GREASE RESISTANT and INSOLUBLE. Complete facilities in our own plant for printing in one or more attractive colors (*with special inks.*)

DRY WAXED PARCHMENT

BUTTER WRAPPERS

BUTTER TUB LINERS
& CIRCLES

BUTTER BOX LINERS

★

LARD CARTON LINERS

MILK & ICE CREAM
CAN TOPS

SLICED BACON WRAPPERS

OLEOMARGARINE
WRAPPERS

★

VEGETABLE SHORTENING

CARTON LINERS

CELERY WRAPPERS

FISH FILLET WRAPPERS
& INSERTS

MEAT WRAPPERS

★

LINERS FOR MEAT TINS

POULTRY WRAPPERS

CHEESE WRAPPERS

TAMALE WRAPPERS

MANY OTHERS

WEST CARROLLTON PARCHMENT COMPANY • WEST CARROLLTON, OHIO

JUNE 1950

9



ANY WAY YOU LOOK AT IT...



IT LOOKS AT YOU! This is Magicast*—a new technique that promises to revolutionize point of purchase advertising. Displays made the Magicast way *seem* to turn and follow the viewer's eye . . . create an *illusion* of movement so realistic, so persistent it defies description. In every test made to date, Magicast displays have drawn tremendous crowds, greatly stimulated store traffic—and sales. It will pay you to familiarize yourself with Magicast—THE DISPLAY THAT LOOKS AT YOU. If you want to see what Magicast can do for you, just drop us a line on your company's letterhead. *There is no obligation, of course.*

CONSOLIDATED *Lithographing Corporation*

Member of Point of Purchase Advertising Institute
1013 Grand Street, Brooklyn 6, N.Y.—EVERgreen 8-6700

Magicast displays can feature faces, figures, trade marks, products—any 3-dimensional subject—in a wide range of sizes. The material used (Vinyl Plastic) is durable, water and weather-resistant, color-fast, light and easy to ship.

*Patented by Third Dimensional Advertising Corp. and a Consolidated Litho Exclusive in the lithographic field.

"IN THE BAG"
ACQUIRES NEW MEANING . . .



thru
GER-PAK
POLYETHYLENE
flat tubing

GER-PAK is Gering's own rigidly processed virgin Polyethylene Film . . . UNIFORM in every required detail of width and gauge control . . . FLEXIBLE at low temperatures . . . HEAT SEALABLE . . . NON-TOXIC . . . ODORLESS.

GER-PAK resists alcohols, acids, alkalies . . . is stable to varying temperatures and humidity changes. It is supplied up to 60" wide, from .0015 to .004 gauge.

APPLICATIONS: Carton and Barrel liners; packaging Frozen and Fresh Poultry, Fish, Fruits, Vegetables, Meats, Dehydrated Products; to protect the goodness . . . and point up the appeal of . . . Flowers, Candy, Cosmetics, etc.



GERING PRODUCTS, Inc.
KENILWORTH CABLE ADDRESS: GERING **NEW JERSEY**

PHILLIES cigars are

GUARANTEED FRESH!



TRIPLE
SEALED
FOR
FRESHNESS

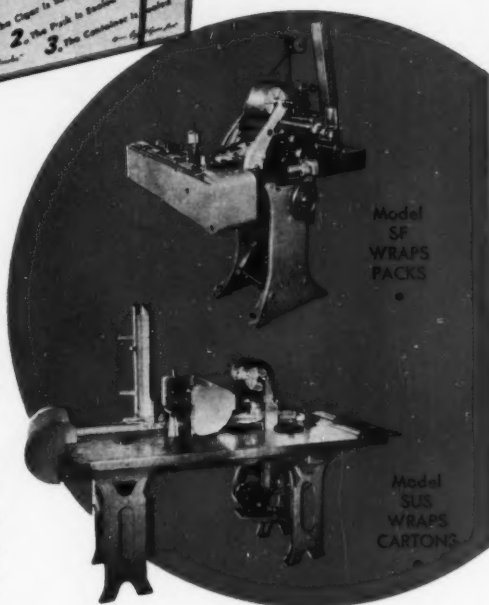
ANOTHER of the many
products quality-sealed on

Scandia machines*

There's economy in the method, as well as in the policy of cellophane-wrapping products that should be kept factory-fresh until they are opened for use. Scandia machines, using less materials do an unequalled job of sealing packages at higher wrapping speeds.

Write for details on Scandia's exclusive features!

*patented under Bronander patents.



manufacturers of machines for

Multiple-Packaging
Bundling
Banding
Wrapping

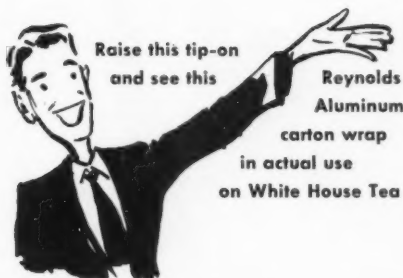
Scandia

MANUFACTURING COMPANY
NORTH ARLINGTON, NEW JERSEY

White House



TEA



Raise this tip-on
and see this

Reynolds
Aluminum
carton wrap
in actual use
on White House Tea

Every single package and every shelf stack of WHITE HOUSE TEA now become "self-illuminating" displays... with Reynolds Aluminum Foil. The gleaming foil highlights, plus extra richness of color, stop the shopper... reflect quality... speed the impulse to buy. Protected quality speeds repeat purchases, too... flavor and aroma safeguarded by moisture-proof, odor-proof Reynolds Aluminum. Let us show you what Reynolds Aluminum can do for your product, as protective packaging or label display or both.

Reynolds Metals Company,
Richmond 19, Va.



REYNOLDS ALUMINUM

PHILLIES cigars are

GUARANTEED FRESH!



TRIPLE
SEALED
FOR
FRESHNESS

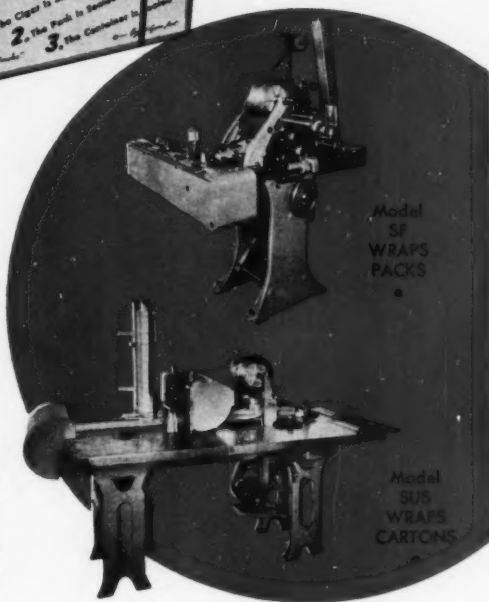
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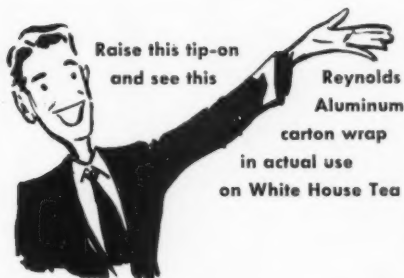
*patented under Bronander patents.



manufacturers of machines for
Multiple-Packaging
Bundling
Banding
Wrapping

Scandia

MANUFACTURING COMPANY
NORTH ARLINGTON, NEW JERSEY



Every single package and every shelf stack of WHITE HOUSE TEA now become "self-illuminating" displays... with Reynolds Aluminum Foil. The gleaming foil highlights, plus extra richness of color, stop the shopper... reflect quality... speed the impulse to buy. Protected quality speeds repeat purchases, too... flavor and aroma safeguarded by moisture-proof, odor-proof Reynolds Aluminum. Let us show you what Reynolds Aluminum can do for your product, as protective packaging or label display or both.

Reynolds Metals Company,
Richmond 19, Va.



REYNOLDS ALUMINUM

fishing for the right adhesive?

When you call Stein Hall you know there's a specific
Waterproof Glue to fill your individual packaging needs.

Take advantage of these two Stein Hall exclusive developments:

- Stein Hall Waterproof Glues run clean at top speeds
- Stein Hall Waterproof Glues give off no odors

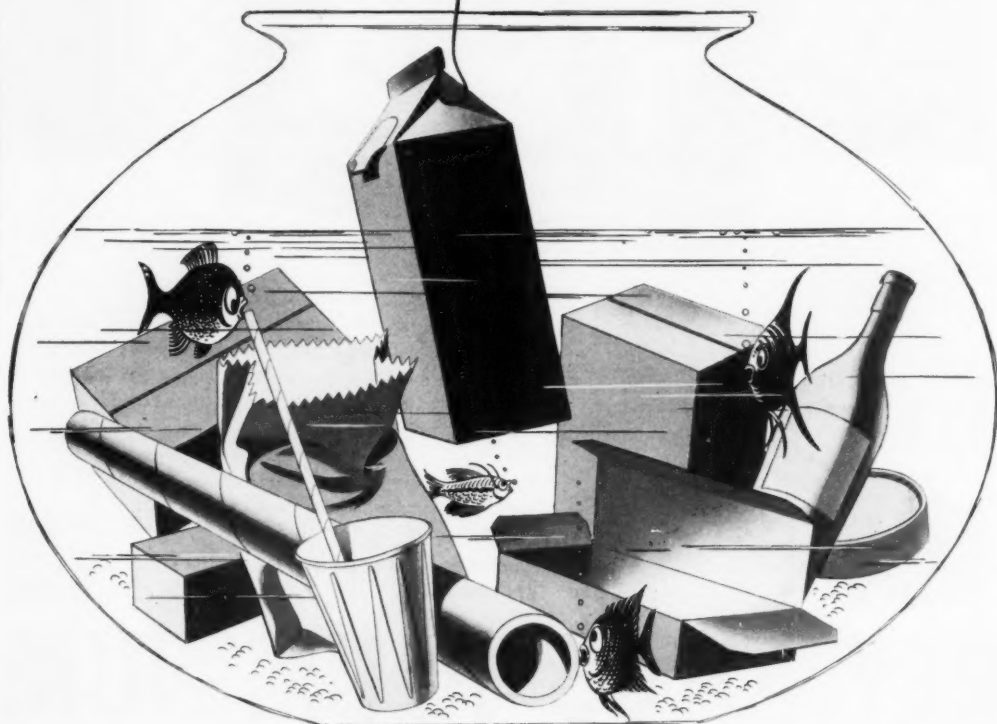
Dampen or drench 'em. With Stein Hall liquid glues they're glued to stay.

For tubes or packages, bottles, boxes or bags,

Stein Hall can lick your packaging problem.



Branch Offices in 16 U. S. cities and Canada



FOIL BOX SPEEDS SALES

**FOR
B. F. GOODRICH**



*Foil Display Carton with
Cellophane window made for
The B. F. Goodrich Company by United*

When point-of-purchase impact is of vital importance, top-flight packaging experts choose Foil Cartons. That's why The B. F. Goodrich Company, one of America's foremost merchandisers, sells its Sojourn Syringe in Foil Display Cartons. Every day more and more companies discover the eye-catching, attention-holding and purse-opening power of Foil. Every day new products packaged in Foil Cartons soar to new sales highs. Find out how your product can get on this best seller list. Write for your free copy of the "Magic Formula"... do it now.



UNITED BOARD AND CARTON
Corporation

P. O. Box 1318 • Syracuse, New York

Board Mills:

Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

Carton Plants:

Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

The Familiar Steel Courier becomes the Ambassador of Goodwill



NOW! COLOR PACKAGING FOR LARGEST STEEL SHIPPING CONTAINER!

**New RHEEMCOTE Process Produces
First Completely Lithographed and Inner
Roller-Coated 55-Gallon Steel Drum**

Color schemes, trademarks and designs, however intricate, may now be accurately reproduced on the biggest of all steel shipping containers.

Striking possibilities of the new, exclusive *Rheemcote* process, as shown above, are the result of years of Rheem research—and development of the world's largest metal-decorating press.

Remarkable for its merchandising value alone, the *Rheemcote* drum not only promotes—it protects!

A roller-coated lacquer lining seals the inner drum surface with glass-like purity . . . and thus opens the door to improved packaging for products which heretofore have

been difficult to contain. New electric "Resistance" welding produces smooth, strong seams, eliminates scale and burn-off metal. A hard, lustrous, exterior finish assures utmost durability against severe weather and handling.

Users of steel containers may at last achieve uniformity of packaging—and the opportunity to billboard their products and name before the eyes of the world!

The Rheem Manufacturing Company, world's largest maker of steel shipping containers, is particularly proud to have developed the *Rheemcote* Process in this its 25th year of service to industry.

For a descriptive, beautifully illustrated brochure on this important contribution to marketing—write direct to Rheem today. No cost or obligation, of course.

RHEEM MANUFACTURING COMPANY • 570 LEXINGTON AVENUE, NEW YORK 22, N. Y.
Plants and Affiliates Throughout The World

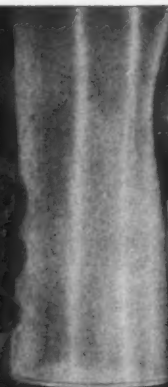
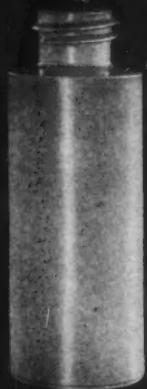
Rely on Rheem to Deliver Your Goods..and Goodwill

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The Handiest

Bottle Ever Made!



ELMER E. MILLS CORPORATION'S

Polyethylene

Plastic Bottle

This is *the* bottle with consumer appeals so strong they actually help sell your product!

It's unbreakable—a powerful consumer selling point on safety and thriftiness.

It's lightweight—takes up less space (and incidentally cuts your shipping cost).

It's a "squeeze bottle"—can be readily adapted to use as a stream—as a spray—as a sprinkler finish.

Our stock bottle is available in 1—2—4—8 ounce sizes. Through a special printing process we can print your label or design right on the bottle.

In addition to the production of this stock bottle and stock closure, we also custom-make other thermoplastic bottles, closures and atomizers. You can depend upon their being made with the same high standards of craftsmanship which keynote all Mills plastic products.

For more information on our custom molding service, or for a free sample bottle, write us or our sales agent today.

ELMER E. MILLS CORPORATION

2930 N. Ashland Ave., Chicago 13, Illinois

Sales Agent: W. BRAUN & COMPANY

Chicago, 300 N. Canal St.

New York, 595 Fifth Ave.

"Good Package Design and Protection are Partners in Sales"

Says

WALTER LANDOR

Leading West Coast Industrial Designer

Good package design involves the materials that go into a package, as well as outer appearance. Eye appeal can stimulate the first sale, but if the product has not been properly protected on its way to the consumer, repeat sales may be lost.

Check the sales leaders in field after field and you will find well-protected packages . . . and over and over again, you will find a Riegel paper inside. Many other Riegel papers are designed for flexible packages, for laminates, for outer wraps and for almost every requirement in protective packaging . . . papers that can be relied on for smooth performance on modern high-speed machines.

Tell us your needs, and we believe we can offer you a paper that will do your job . . . efficiently and economically.

RIEGEL PAPER CORPORATION
342 Madison Avenue, New York 17, N.Y.

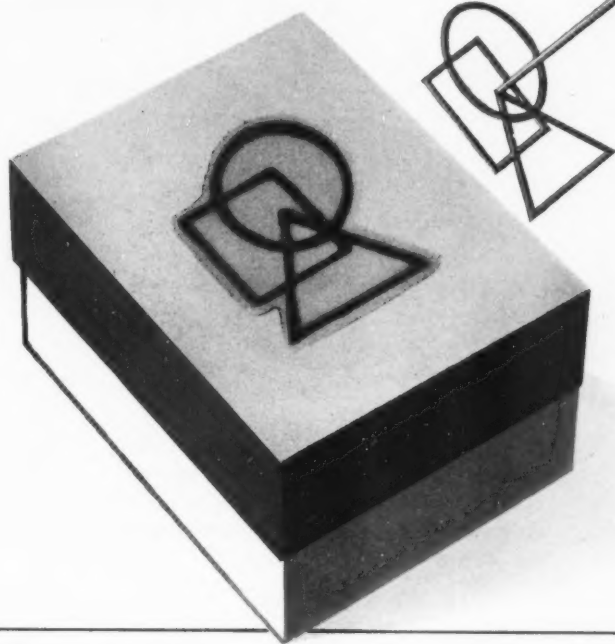


Riegel

*Tailor-made Papers for
Protective Packaging*

IBRAND

...your product identification



“Quality
Backed
by Name”

Does your Package Reflect the *Quality* of your Product?



OLD DOMINION
Box Company, Inc.

Plants located throughout the South

Executive Offices: LYNCHBURG, VA. • Sales Offices: CHARLOTTE, N. C.

OLD DOMINION BOX CO.
Charlotte, North Carolina

Please send me illustrated folder on the following types
of packages: Set-up Boxes ☐, Folding Boxes ☐, Corru-
gated Containers ☐, Acetate Boxes ☐, Paper Canisters ☐.

Name

Company

Address

Ever since the Gibson Girl



...quality products have sold in fine
Rowell set-up boxes.



...and today, just as 50 years ago, the fresh,
clean-cut line and expert craftsmanship and
color printing of a Rowell container provides
the eye compelling, desire creating combination
that leads to sales and repeat sales.



E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N. Y.

when products need extra-safety

SPECIFY

LOXOL POLYETHYLENE-ON-PAPER LINERS FOR YOUR FIBER DRUMS

Integrally wound Loxol polyethylene liner provides interior protection

Strong sidewall of fiber drum provides exterior protection

Certain products can't get *too much* protection during shipment. . . the best available container is the *only* one that will do. That's where Loxol enters the picture.

Take an ordinary fiber drum, wind an inner ply of Loxol, polyethylene-coated, heavy bleached kraft linerboard, and you have a package that's suited perfectly to the packaging requirements of caustics, foods, bulk cosmetics and pharmaceuticals, moisture sensitive products, adhesives, and other hard-to-ship materials.

Loxol polyethylene-lined fiber drums have proved their worth in cases where moisture control, freedom from contamination, and reaction of the container material with the con-

tents had, in the past, been almost unsolvable obstacles to satisfactory packaging.

The polyethylene has much more than clean whiteness to its credit. . . it is inert and non-toxic, odorless and tasteless, moisture and greaseproof, absolutely uncontaminated, and has an extremely low MVTR.

Loxol-lined fiber drums are available in several handy styles and a large variety of sizes. Give your sensitive products the protection they need. Write today for the name of a converter in your locality who will supply prices and full details.

* T. M. Reg.



NEW SERVICES..... FOR PLAXPAK BOTTLES NEW STOCK MOLDS...

- This is a progress report on our program for the Plaxpak polyethylene bottle, the unbreakable, squeezable container that's making new packaging history.



RANGE OF STOCK MOLDS

Stock shapes in Plaxpak bottles have been increased to six. New opportunity to achieve distinctive packaging at minimum cost.

DESIGN ASSISTANCE

Our staff is ready to work with your designers in developing a suitable special shape — or in adapting a standard mold.

TECHNICAL ASSISTANCE

Authoritative guidance and laboratory services are available on all technical phases involved in your use of the bottle.

EXPANDED PRODUCTION FACILITIES

Our production capacity has been doubled in the past year to assure prompt delivery on special and stock molds.

CLOSURES AND INSERT PLUGS

These are now available through us. We can help you select the right type for your application and deliver quickly.

PRINTING

We can handle all your printing requirements economically. We can print either by silk-screen or hot stamping.

MERCHANDISING ASSISTANCE

This service covers consultation on color, use of decorative accessories, advertising, publicity and promotion.

For more details on the Plaxpak bottle and the services behind it, please write Plax.

PLAX CORPORATION

P. O. BOX 1019 • HARTFORD 1, CONNECTICUT
In Canada, Plax Canada, Ltd., Toronto

Offices in New York City, Syracuse, Philadelphia, Cincinnati, Chicago, St. Louis and Houston.

PLAX BLOW-MOLDED PRODUCTS ARE MADE UNDER THE FOLLOWING U.S. PATENTS: 2128239, 2175053, 2175054, 2230188, 2230190, 2260750, 2283751, 2349176, 2349177, 2349178.



Pretty...

Yes!



...and Practical

FISHER'S Aluminium Foils meet *every* packing requirement. Unbacked—or backed in tissue, paper, board, or wax—printed or embossed, for the gayest popular sales campaign or the most dignified class appeal, they sell goods consistently *the year round*. You can choose from thousands of sparkling

designs for immediate delivery, or special printings are carried out at very short notice. Send for samples and price information today. Remember—Fisher's are one of the world's largest foil producers and converters—you'll get no speedier, keener service anywhere.



FISHER'S FOILS

FISHER'S FOILS LTD • WEMBLEY • MIDDLESEX • ENGLAND

Telephone: WEMbley 6011

Cables & Grams: Liofuit, Wembley (ABC Code 6th Edn.)



Speaking of "after-uses" . . . in keeping cookies and other baked goods fresh, this humidor box is "tops"; for the smoker, it's a dream come true.

Perfect for cheese but by no means limited to cheese.



Packages

THAT PROMOTE AND SELL...

How appealing—delicious cheeses in transparent, plastic packages.

What an opportunity for an alert manufacturer to build volume—*profitably*.

Yet cheese is only one example. Candies, dried fruits, nuts—hundreds of other items—sell better when thus displayed. And consumers experience an added buying urge in the packages' many "after-uses."

Beautiful, crystal-clear, durable, Vlček plastic packages are supplied both standard and special to meet all needs—in many sizes and compartment arrangements—economical in any quantity.

Whatever your products, it's worth your while to investigate the possibilities of these packages—*saleswise, profitwise*. Write for prices and suggestions, telling us the items to be packaged, so we can be of most help.

PLASTICS DIVISION
The VLČEK TOOL COMPANY
3001 EAST 87th STREET • CLEVELAND 4, OHIO



He Told The Board About Hy-Tra-Lec

HY-TRA-LEC is the name of a new and exclusive system of weighing. *Now saving money* and making profits for more than 200 leading food, candy, bakery and other dry product manufacturers.

Its principle is that of "positive displacement", a departure from the conventional beam or spring scales. Positive displacement itself is old stuff, of course. Archimedes, the Greek geometer (287-212 B.C.) wrote about it with authority. But *until Wright* incorporated this ancient principle into modern weighing machines, it remained far removed from 20th century packaging departments.

Wright Hy-Tra-Lec Automatic Weighers net weigh and fill dry products into any type container at *high speeds with greater accuracy*. You who are responsible for profits know what that means. Less labor. Lower production costs. A very minimum of over-weights. A uniform package.

- Range is from one-half ounce to 16 ounces. Semi-automatic models when bags are used. Fully automatic models for handling rigid containers.
- Marshmallows or mints. Pretzels or potato chips. Cookies or crackers. Wright machines net weigh and fill most any free flowing or semi-free flowing dry product as gently as a feather and as accurately as Hy-Tra-Lec.

Be in a position to tell your board what Hy-Tra-Lec can do for your company. Write for latest literature today.

WRIGHT MACHINERY COMPANY
 ESTABLISHED 1893 - DURHAM, NORTH CAROLINA
 SUBSIDIARY OF THE SPERRY CORPORATION



COMPANY SALES OFFICES: JERSEY CITY · CHICAGO · DURHAM
 WEST COAST REP.: KING & ANDERSON, SAN FRANCISCO
 SOUTHWEST REP.: R. P. ANDERSON COMPANY, DALLAS
 CENTRAL REP.: HAL HUDSON EQUIPMENT COMPANY, TOLEDO
 EUROPE: SPERRY GYROSCOPE COMPANY, LTD., LONDON

Wright Machinery Company
 500 Calvin Street, Durham, N. C.

Gentlemen: Please send me latest information on your Hy-Tra-Lec Automatic Weighers.

Name.....

Company.....

Address.....

City..... State.....



The modern plastic selling container
that makes them want to buy



Regardless of whether or not your products are well advertised, they must present a stand-out display at point-of-sale. The container must strongly imply plus value. By using Clearsite Plastic Containers, you package handsomely, distinctively, functionally, protectively. And, because Clearsite Plastic Containers offer infinite variety to work with—in size, form, color—you make your container yours alone. Your package is the embodiment of your position in the field and reflects the high quality of the contents.

Endow your products with these sales advantages of Clearsite Plastic Selling Containers: **Shatterproof** • **Dimensional Uniformity** • **Featherlight** (1/4 Wt. of Glass) • **Tasteless and Odorless** • **Decorated and Printed** • **Clear or Opaque in Gemlike Colors** • **Plus-Value Effect**. Stock size diameters from 3/8" to 1 1/4". Lengths as required. With Metal or Plastic Screw Caps or Friction Closures. Special sizes and styles made to order to your specifications.

Clearsite

Plastic Selling Containers are made only by

CELLUPLASTIC CORPORATION 54 Avenue L, Newark 5, New Jersey

Write for Samples, Prices and Data-Packed Catalog Material

AMERICA'S #1 SOURCE FOR PLASTIC CONTAINERS • ESTABLISHED 1919

Milwaukee • Los Angeles • Detroit • New Haven • Cleveland • Denver • Minneapolis • Cincinnati • Atlanta • Houston • Chicago • Jacksonville • Ft. Worth • St. Louis • San Francisco • Jackson • Richmond • Montreal • Toronto



Imagination kindled by the ability to
produce the finest in folding cartons
is at your service.



CHICAGO CARTON COMPANY, 4200 S. Crawford Ave., Chicago 32, Illinois

FOLDING CARTONS • PLAIN • PRINTED • LAMINATED • PARAFFINED



For beauty in WRAPPERS ...it's Patapar

When you want a wrapper with beauty, with extra sales appeal call on Patapar Vegetable Parchment.

And with Patapar you'll have a wrapper that really protects. Patapar has high wet-strength. It resists grease. With clean, strong, white folds it will keep your product fresh and appetizing.

We'll print the Patapar wrappers for you in colorful inks with smart, modern design. Our plants are specially equipped for printing Patapar economically in one or more colors by letterpress or offset lithography.

May we show you samples of printed Patapar wrappers and quote prices on your requirements? Write us today.



Patapar Keymark,
nationally advertised
symbol of
wrapper protection

PATERSON PARCHMENT PAPER COMPANY • BRISTOL, PENNSYLVANIA

Headquarters for Vegetable Parchment since 1885

West Coast Plant: 340 Bryant Street, San Francisco 7, California

Sales Offices: 122 E. 42nd Street, New York 17, N. Y. • 111 W. Washington St., Chicago 2, Ill.

Wonderful for:

Butter wrappers
Ham boiler liners
Deep freeze wraps
Can liners
Fish wrappers
Cheese wrappers
Margarine wrappers
Milk and cream can gaskets
Bacon wrappers
Vegetable wraps
and many other uses

Patapar
HI-WET-STRENGTH
GREASE-RESISTING PARCHMENT

★ STAR BRAND ADHESIVES..

★



ONE TRIAL IS WORTH A THOUSAND WORDS!

That comfortable feeling of *knowing* your adhesives are on the job *after* production is yours the day you standardize with STAR BRAND ADHESIVES.

Ceaseless research, finest raw materials and careful compounding put into every Star Brand Adhesive the reliability that means *results* . . . flawless, dependable results for each of your packaging operations calling for an adhesive.

From labeling to case sealing...there's a Star Brand Adhesive formulated to deliver exactly the results you're looking for. For exceptional conditions requiring a *special* adhesive, try our RESINOUS and LATEX BASE emulsions . . . and our LACQUER TYPE adhesives.

- STAR Case Sealing Glue
- STAR Folding Box Glue
- STAR Hot & Cold Pick-Up Gums
- STAR Tin Paste
- STAR Brightwood Gum
- STAR Carton Sealing Glue
- STAR Bench Paste
- STAR Tube Glue
- STAR Lap End Paste
- STAR Tightwrap Glue

... and STAR Labeling Glues in Ice-proof and Semi-ice-proof formulations.



"MAKE YOUR IDENTITY STICK"

BROTHERS COMPANY

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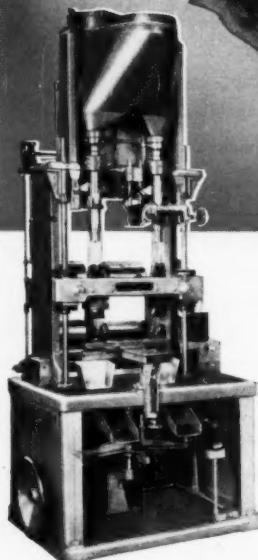
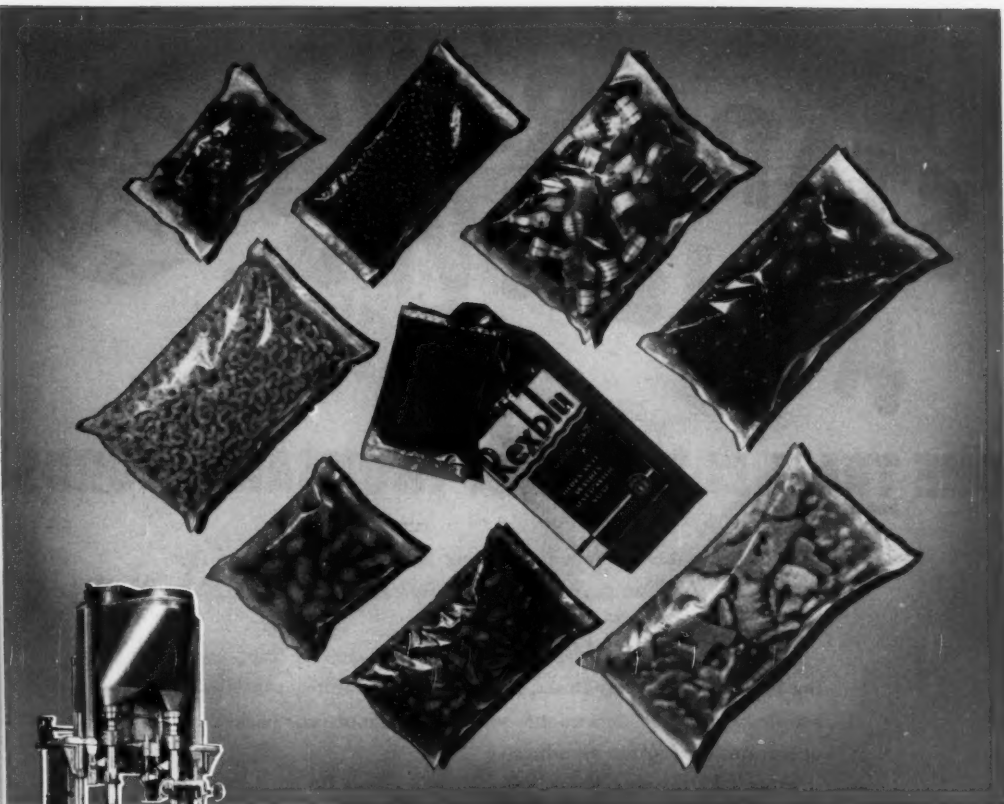
NEW YORK
406 Pearl St.

BALTIMORE
131 Colvin St.

PHILADELPHIA
1315 Race St.

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980 Hudson Ave.

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Lister Ave.



POLYETHYLENE PACKAGES ON **STOKESWRAP** PACKAGING MACHINES

Some of the products particularly suited for packaging in Polyethylene film are the following:

Soap powders
Bleach and chemical powders
Liquids
Syrups
Creams and pastes
Small metal parts
Air rifle shot

Ball bearings and hardware
Marbles
Frozen foods
Nuts and hard candies
Dehydrated products
Hygroscopic products
Powdered milk products

The Stokeswrap Automatic Packaging Machine has been produced for a number of years for handling various heat sealing films, such as Cellophane, Pliofilm, heat sealing foil, heat sealing papers, etc., and the new machines are now equipped to handle Polyethylene film, either printed or un-

printed. Use of Polyethylene films gives a stronger package, allowing heavier weights of products to be handled and also giving added protection for many products which heretofore could not be packaged in flexible packages.

Exclusive West Coast Distributors:
Anderson-Barngrover Division of FMC
San Jose 5, California

STOKES & SMITH CO.
PACKAGING MACHINERY PAPER BOX MACHINERY



Subsidiary of Food Machinery and Chemical Corporation
Frankford, Philadelphia 24, U. S. A.

The lowest-cost All-Transparent Rigid Packages



*Plastafol** Cartons

**NO OTHER PACKAGES ARE MORE APPEALING AT POINT OF SALE...
PROTECT BETTER...DISPLAY THEIR CONTENTS MORE EFFECTIVELY**

Here's how to make window-clear plastic go to work on your sales problem. Our famous PLASTAFOL* Cartons may well prove the best silent salesmen you ever put on the payroll.

In small sizes for which PLASTAFOL* Cartons are

especially adapted, they cost less than any other rigid plastic package. Packagers of highly competitive, smart merchandise have kept our plant growing. Our business is up 600%... and we'd like to take a crack at helping you step up yours.

Write or wire us. We'll get right on the job!

PACKAGED IN *Plastafol**

*Trade Mark Reg. U. S. Pat. Off.

New York, N. Y. • Phone, Enterprise 6613

Troth • Bright • Page, Inc.

Paoli, Pa. • Phone, Paoli 1846

Your Folding Cartons are Produced by

**THE MOST MODERN MACHINERY
AND METHODS KNOWN TO
PACKAGING ART**

when You Specify

**FOLDING
CARTONS**
by Ritchie

Ritchie's entrance into the manufacture of Folding Cartons means—that you now get the benefit of the Newest, Most Modernly-Equipped Folding Carton Plant in the Industry; the Direct Savings resulting from the latest cost-cutting, efficiency methods... the High Precision equipment... the Finest Construction on the most improved machines... and Dependable Delivery due to these complete, new production facilities.

All these Folding Carton advantages are yours at Ritchie's, PLUS our 84 years of experience and technical skill in planning, designing and producing packaging for the makers of America's finest products.

Send us one of YOUR packages
for **FREE EVALUATION** by Dave Chapman

We have retained the services of Dave Chapman, famous designer and packaging consultant, to render his critical opinion of your packages on such important factors as Eye Appeal, Product Protection, Sales-Creating Value and other essential elements; all without any cost or obligation to you.

Select one of your packages now, on which you would like to have authoritative opinion as to its good features and weaknesses.
Mail it in today. Use coupon below.

New Brochure Tells "How, What, When, Where, Why" of Better Packaging
This helpful reference booklet is yours Free of Charge, simply by requesting it on the coupon below.



FREE APPRAISAL ☐

Without cost or obligation, I would like to have Dave Chapman's evaluation of our package which is enclosed.



Dave Chapman

☐ **FREE BROCHURE** I would like to receive a copy of your brochure "101 Ways to Get Better Packaging" and am interested in getting
☐ Transparent Boxes ☐ Set-Up Boxes ☐ Fibre Cans
☐ Please have a Ritchie Representative call on me.

W. C. Ritchie and Company,
8840 Baltimore Avenue, Chicago 17, Illinois

SIGNED _____ TITLE _____

COMPANY NAME _____

STREET ADDRESS _____

CITY _____ STATE _____



8840 BALTIMORE AVENUE, CHICAGO, ILLINOIS

New York Los Angeles Detroit Providence
Denver St. Louis Cleveland Jacksonville Dallas



THE CROWNING TOUCH FOR STYLIZED PACKAGING

*Decorative Box Coverings and
Perfection Decorated Papers*
by **ROYAL**

There's a wealth of extra sales appeal in packages whose colors are fresh, vivid and compelling . . . whose designs reflect the modern beauty and artistry created by today's top-flight stylists. That's the plus you get in PERFECTION DECORATIVE box coverings and PERFECTION DECORATED papers, as well as a choice of many new designs.

There are literally thousands of designs for you to choose from for general everyday use. Our beautiful colored floral and striped patterns are appropriate for any time of the year. Enhance the prestige of your product and increase your sales.

PERFECTION Box Coverings and Papers

For Special Occasions:

Weddings	Father's Day
Bridal Showers	Bon Voyage
Baby Showers	Christmas
Easter	Valentine
Mother's Day	Birthdays

We offer many distinctive designs in which your name and trade mark can be incorporated at slight added cost. Specify PERFECTION when ordering.

Our papers are available also for gift wrapping and window displays.

The Crowning Touch - A Royal Paper

ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

210 ELEVENTH AVENUE

• NEW YORK 1, NEW YORK

Elsie

PUTS A BIG CHEESE IN ITS PLACE*



* inside

A TRI-STATE RIGID PLASTIC BOX

For Top Appeal—Utility

—Premium Sales



"No favorite like an old favorite," says Elsie, the famous Borden cow. And packaging the perennially-popular two-pound Chateau Cheese Food in a new Tri-State Rigid Plastic Box makes this old favorite move like a brand new "Find" in spot markets throughout the country.

Co-starring with Borden's mellow-mild Chateau in the current promotion, this Tri-State Rigid Plastic Box proves that products in useful bonus boxes move faster—even at premium prices! Packaging your product in a Tri-State Box, retailed at premium price, can boost unit sales in market after market.

Whether you manufacture a food, a confection, mass or class products of any kind—a gleaming, transparent Rigid Plastic individual showcase will keep your product fresher, cleaner, more appealing. We'll mold to your specifications, or you may choose an inexpensive Rigid Plastic Box from our wide assortment of stock shapes and sizes.

The best Rigid Plastic Boxes are Injection Molded by Tri-State.



TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York Office: 12 E. 41st Street—Murray Hill 3-6572

Chicago: 176 W. Adams Street



Good Salesmen Hard to Find?



We Ship 'em by the Carload!

When the initial order is signed, H-A glass containers start their selling. They become point of sale displays on dealers' shelves. They take your product into the home and become constant reminders of its goodness and protectors of its quality.

They become the homemaker's visual inventory of her future needs.

H-A glass containers are designed to sell as effectively as they pack.



HAZEL-ATLAS GLASS COMPANY

Wheeling, West Virginia

MODERN Packages

FOR TODAY'S BRIGHT KITCHEN SHELF

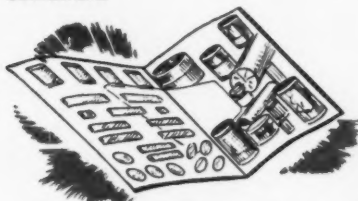
COMMAND ATTENTION... STEP UP SALES!

CLEVELAND CONTAINERS

are designed and produced to spotlight the advantages of your products. They give individuality and customer appeal to articles such as:

Bouillon Cubes	Bread Crumbs
Powdered Custard	Malted Milk
Sugar . . . Salt	Potato Chips
Gelatine Desserts	Popcorn . . . Nuts
Cracker Crumbs	Cheeses . . . Coffee
Cookies . . . Rice	Fruit Cake
Powdered Milk	Pretzels . . . Candy
Baster . . . Spices	Cereals . . . Flour
Biscuits	Puddings
Cheese Cake	Salad Dressing Mix

Besides excellence of construction, you obtain low cost and quick deliveries in using Cleveland Containers.



Ask for our new folder showing various types of Cleveland Containers.

See our Exhibit
Booth No. 34
1950 Inform-A-Show
N. A. P. A. Convention
June 11-14 Cleveland



The CLEVELAND CONTAINER Co.

6201 BARBERTON AVE. CLEVELAND 2, OHIO

• All-Fibre Cans • Combination Metal and Paper Cans
• Spirally Wound Tubes and Cores for all Purposes

PLANTS AND SALES OFFICES: Cleveland, Detroit, Chicago, Plymouth, Wisc.,
Jamesburg, N. J., Ogdenburg, N. Y. • ABRASIVE DIVISION at Cleveland
SALES OFFICES: Grand Central Terminal Bldg., New York City; Washington
Gas Light Bldg., Washington, D. C.; West Hartford, Conn.; Rochester, N. Y.
Cleveland Container Canada, Ltd., Prescott, Ontario • Offices in Toronto and Montreal



THE IPI PACKAGE POST

Highlights in inks for packages are shown by photos taken in the IPI booth at Chicago, Ill. Even twice usual space lets us show but a few of our friends who called on us. International Printing Ink Division of Interchemical Corporation, 650 11th Ave., New York 19, N. Y. Address inquiries Dept. A.

IPI, Anilox, Vopaset, Gemtone and In-tag are trademarks of Interchemical Corporation.



IPI's Col. Joseph W. Viner (right) explains advantages of IPI Anilox inks to R. P. Puccinelli (left) and R. J. Kleckhefer (center) of American Laco

Paper, Milwaukee. New Anilox inks for absorbent stocks have remarkable qualities—they dry fast, print sharp, are lightfast and stable on the press.



Minnesota Mining's Dean R. Murray (left) gets details of IPI Color Control Service from O. C. Holland, IPI. Color standards and tolerance limits control color uniformity on packages.



Sparkling IPI Gemtone Inks (for labels, packages) started talk between Ken Klegen (left), Keystone Paper Box Co., York, Pa., and Bob Donald, IPI. Gemtone inks look as bright when dry as when wet.



IPI customers liked the new IPI Color Picker. Here, New Yorkers R. H. Bayer (left), Pres. of Cardinal Mills, and Ken Heiberg, Pres. of Brooklyn Press, discuss this handy tool for all package printing.



"Packaging show within a show"—busy IPI booth swarmed with visitors attracted by colorful, moving displays. If we were out of "Color For Package Printing" booklets when you called, write us today for your free copy.



Henry Bond of Richardson-Taylor Globe, Cincinnati, tells George Welp, IPI, about prize-winning packages his firm produced with IPI inks. Top-flight package printing demands the right inks for best results—IPI has 'em.



Visitors called popular IPI Booth at Chicago Packaging Show "Ink Headquarters." Here they saw all that's new in package printing inks, printing techniques and stocks. IPI showed over 2,000 different packages printed on all

types of surfaces by every major process—including top prize-winners printed with IPI inks. Demand for new "IPI Color Picker" and "IPI Color Guide For Boxboard" exceeded supply. If you missed out, write for free copies.



IPI bag-printing inks interest E. E. West (left), Chase Bag Company, Richmond, Va., and IPI's F. Jack Jeuck. IPI specializes in inks for all types of bag materials—paper, cloth, mesh, plastics, foils.



IPI's John Brockschlager and Earl Nigman of Milwaukee just finished telling customers about IPI gloss and metallic inks for package printing. These inks make good packages look better every time.



F. Henry Wittel—Standard Printing Company, Columbus, Georgia (right), and Sherman Ruxton, IPI, talk about how perfectly IPI Anilox inks print on the new, heavier, moisture-proof cellophanes.

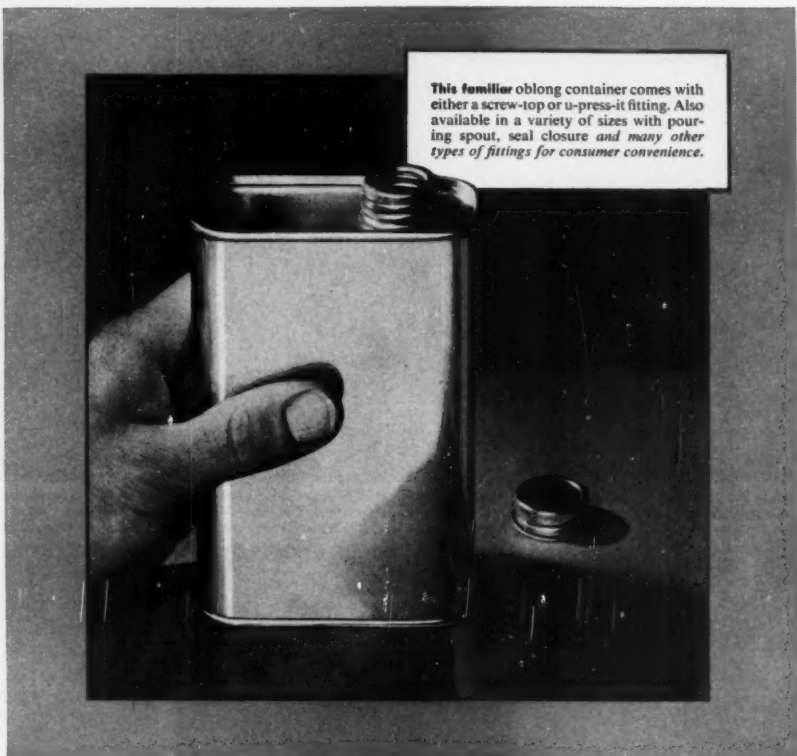
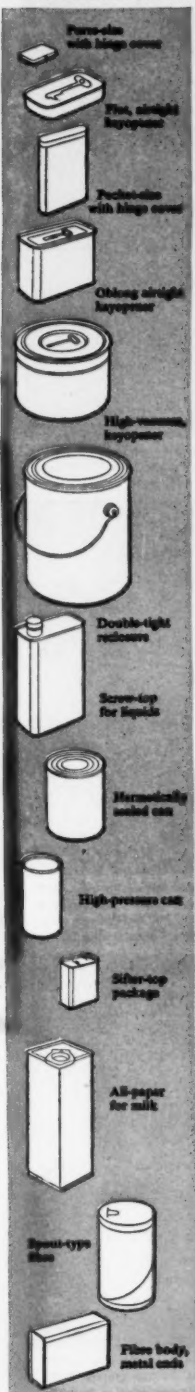


Odor-free, instant drying IPI Vaposec inks for food packages are discussed by C. E. Eberly (left) and Harvey Allen (center) of Paper Art Co., Indianapolis, with Bob Dietz, IPI. They print sharp, have brilliant color.



Polyethylene film is easy to print with new IPI Anilox inks and special IPI anchor coatings. Here Irvin Makrauer (center) and James Harris (left) of Mehl Mfg. Co. get printing tips from IPI Anilox expert, Homer Norton.

**WHICH PACKAGE
SUITS YOUR PRODUCT?**



Are you considering the consumer when you package liquids?

This container makes friends—keeps 'em!

You know it as the handy can that pours easy, doesn't drip and closes tight.

Advertising experts and sales managers know it as the package that "works with" the label—plenty of space to show your brand in brilliant color.

It now helps sell such products as linseed oil, turpentine, paint and varnish remover, maple syrup, honey.

It could easily do the same robust selling job for liquid detergents, liquid wax or olive oil.

Brass? Silver?

And how about brass or silver polish, glass cleaners?

To sum up, *this container is ideal for many liquids where positive reclosure is essential.*

Don't you think your package-development experts should get together with ours?

Since 1901 Canco has been responsible for just about every important development

in the packaging industry—food and non-food products alike—involving an infinite variety of containers that are metal, fibre or a combination of both.

Let Canco help you in designing labels, cutting costs, building sales and advising on packaging, processing, filling and closing.

For prompt help in production-line emergencies, and containers in any quantity when you need them, take our advice and call *Canco first!*



1. REAL TRANSPARENCY



2. RIGHT PROTECTION

Two essentials of an effective package

The growing trend toward self-service merchandising has made these two qualities essential to an effective self-selling package:

1. Transparency. Shoppers make many purchases on impulse. When food is packaged in crystal-clear Cellophane, they can see all the appetizing goodness of a product.

2. Protection. Shoppers want the assurance that what they buy is protected from dirt and handling—and

kept fresh and full of flavor. There are more than 50 different types of Cellophane film, each tailored to a special protective service.

That's why these two essentials make a successful package. The converters of Cellophane and Du Pont packaging specialists are continually at work helping to build better packages.

E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

**Du Pont
Cellophane**

Shows what it Protects—Protects what it Shows

DU PONT

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

preliminary sketches



created for you—by our artists. Any
of the outstanding designs shown here can be
purchased upon request, or let us create a design
to meet your personal need.

Quality **OLIVE CAN COMPANY** Service
MANUFACTURERS AND DESIGNERS OF METAL CONTAINERS
SINCE 1912

450 N. LEAVITT ST., CHICAGO 12, ILLINOIS

BBD *Whiter* WHITE INKS

your best bet for

- OPACITY
 - EVEN COVERAGE
 - MORE MILEAGE
- in ANILINE PROCESS PRINTING

BBD has a
WHITE INK for
every package printing
and converting need



- **EXCELLOPAKE** for CELLOPHANE, GLASSINE, FOIL and other non-absorbent stocks
- **HYDROTONE** for heavy-weight TISSUE, KRAFT, SULPHITE and noiseless Pop Corn bag stock
- **MAT ACETATE** for all grades of ACETATE
- **FOIL-BRITE** for METALLIC FOILS
- **PREPRINT** for GLASSINE prior to waxing
- **KRAFT-ANILINE** . . . for KRAFT and colored SULPHITE stocks
- **VELVA-TEX** for light-weight TISSUE
- **POLY-PAKE** for POLYETHYLENE film
- **VINYL-INE** for VINYL film

These BBD inks are also available in full range of standard and special colors.

BBD offers you a choice of *nine* different white aniline inks—each the *whitest* of its type . . . each designed for a specific stock . . . each proved in use throughout the world. BBD whites give you dense, opaque, uniform coverage—print clean and sharp because they don't build up on plates and rollers. Specially formulated to dry at high press speeds according to the stock and equipment with which you use them . . . and give more coverage per pound. Request printed samples and details.



A BONUS for BBD INK users

. . . our famous "shirt-sleeve" technical service by aniline ink specialists. Let a BBD field man show you—on your own press—how to get better print quality.

Bensing Bros. and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

401 N. BROAD STREET, PHILADELPHIA 8, PA.



Associated Manufacturing Plants: 81 Albion Street, Wakefield, Mass.; 2358 N. Seeley Ave., Chicago 47, Ill.

Export Division: McLaurin-Jones Co.; 22 East 41st Street, New York 17, N. Y.

West Coast Distributor: A. M. Bojanower, 5270 E. Washington Blvd., Los Angeles 22, Cal.



Competition's getting tougher...

*for customer attention. The whole street and everything in it competes with the store window. The competition for windows increases steadily, too! ... To get new audience for windows, new interest in products from quick prospects, new appreciation and cooperation from dealers, Einson-Freeman offers **technicrome**—which puts new drama in display, pulls passers-by to a full stop, gets a plus preference among dealers!*

***technicrome** is an exciting new presentation, which can be illuminated vividly with simple backlighting...booked for definite dates and used more than once...produced with your regular display order...Exclusive with E-F! Details on request...*

EINSON-FREEMAN CO., Inc., Sales-scintillant Lithographers,
Starr & Borden Avenues, Long Island City, New York.

Full protection for your product—

a WIRZ Tube

—convenient,
attractive,
sanitary



Wirz Tubes rate high in the three essentials of a good container—
protection, convenience and eye-appeal.

Wirz Tubes preserve the quality of
your product; are strong, easy to use.

Their long-lasting finishes increase
the appeal of your package, add an
extra zip to your sales message.

Write today for sample tubes and a
copy of our booklet, "Wirz Tubes—
Ideal Containers" for creams, pastes,
powders, greases and semi-liquids.

- Collapsible Metal Tubes
- Lacquer Linings
- Wax Linings
- Wastite Closures
- Soft Metal Tubing
- Household Can Spouts
- Applicator Pipes
- Compression and Injection Molding

COLGATE
RIBBON DENTAL CREAM

ESTABLISHED 1836

A. H.
WIRZ
Inc.

Fourth & Cole Sts.
CHESTER, PA.

New York 17, N.Y.
30 E. 42nd St.

Chicago 4, Ill.
80 E. Jackson Blvd.

Memphis 2, Tenn.
Wurzburg Bros.

Los Angeles 14, Calif.
1709 W. Eighth St.

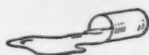
Export Division—755 Drexel Bldg., Philadelphia 6, Pa.

Havana, Cuba
Roberto Ortiz Pianos
Roberto Ortiz Hector

POWDERS

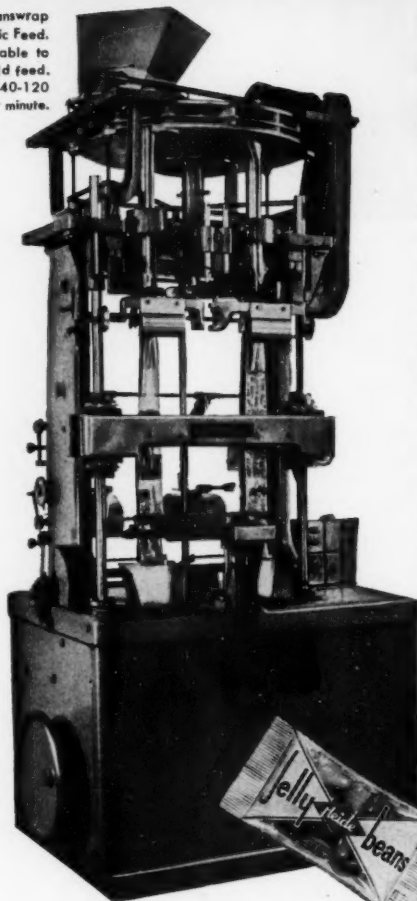


TABLETS

FREE FLOWING
SOLIDSLIQUIDS OR
SEMI-LIQUIDS

TRANSWRAP

Model "B" Transwrap
with Volumetric Feed.
Also adaptable to
auger or liquid feed.
Produces 40-120
pkgs. per minute.



AUTOMATICALLY COMBINES MINIMUM PACKAGE COST WITH MAXIMUM VERSATILITY

In one machine, TRANSWRAP is a self-contained "packaging department." Using cellophane, Pliofilm, glassine, roll foil or other suitable heat-sealing materials, it forms, fills and seals your package completely automatically.

The same TRANSWRAP machine with suitable feed assembly can package 1 aspirin tablet or 1 lb. of peanuts . . . 1 teaspoon of vanilla extract or 1 lb. of margarine . . . 5 grams of salt or 16 oz. of powdered milk. Package sizes possible range from $\frac{7}{8}$ " x 2" to $5\frac{1}{4}$ " x 13". They may be either pillow, or "fin seal" type (sealed around four edges).

From the standpoint of economy, TRANSWRAP adjustments and operation are so simple, a single operator can handle a whole battery of machines. Attractive, sales-conditioned TRANSWRAP packages, filled and sealed, actually cost less than ready-made empty bags.

Custom-engineered adaptations are possible on any TRANSWRAP machine to meet your individual requirements with maximum efficiency.

WRITE FOR FREE ILLUSTRATED BROCHURE

Manufactured and Sold by
**TRANSPARENT WRAP
MACHINE CORPORATION**

Route 17 and Henry Street
Hasbrouck Heights, New Jersey
REPRESENTATIVES IN PRINCIPAL CITIES
OF THE U. S.





WARETONE

HERALDS A BRILLIANT NEW ERA IN
PACKAGING PERFECTION

MIRROR FINISH • CRAFTSMAN QUALITY

Look to WARETONE for lasting beauty. This superior new coated paper fulfills the hope of the packaging world for enduring luster and sparkling color reproduction — on either letterpress or offset. Its non-porous, gleaming-white surface prevents inks from flattening out, giving sharper, more permanent printing brilliance. And of special interest, is its unusual ability to resist scuffing and rubbing. Prove to yourself how WARETONE dramatically improves the eye-appeal and buy-appeal of wraps and labels. Write us today for specimens showing how WARETONE will make your packaging work outstanding in the field.

*Other McLaurin-Jones Products
Famous for Fine Quality*

GUARANTEED FLAT GUMMED PAPERS

All colors — all finishes
for every printing purpose

Old Tavern

A new line of superior metallics
add rich splendor to printing effects

WARE **Delayed Action** HEAT SEAL

For unexcelled label work on many
difficult surfaces



McLAURIN-JONES COMPANY

BROOKFIELD, MASSACHUSETTS

Offices: New York • Chicago • Los Angeles

Meet the BEMIS Small Bag Family

These Bemis Bags belong on your packaging team. Here's why: They fill and pack economically. That helps your costs. They give unbeatable display to your brand. That helps your sales. They are good packages and consumers realize it. And that helps everybody. Get the full details of the Bemis small bag story. Ask the Bemis man.

A Winner for You



Bemis DELTASEAL Bags (flat-tube) have the exclusive Pull-Cut-Pour Spout. The white coated or bleached paper makes your brand stand out on all sides. The squared shape makes for eye-filling mass displays. Blue-lined, if you prefer, (makes white flour look whiter).



Bemis Flexi-Carton—Infuck bags that square up beautifully and billboard your colorful brand all around. Like Deltaseal, these are economical bags worthy of your good product. A variety of types of closures available.



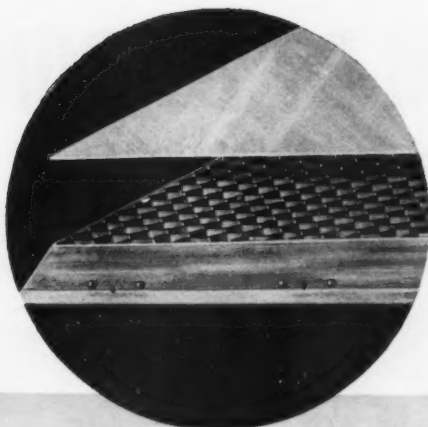
Bemis CELLOPHANE Bags are increasingly preferred for meal and granular products. Cellophane is a showcase for your merchandise . . . really turns the spotlight on it. And the brilliant color printing on Bemis Cellophane Bags shouts for attention...you must see it!

There is a
Bemis Plant
or Sales Office
near you —

Baltimore • Boise • Boston
Brooklyn • Buffalo • Charlotte
Chicago • Cleveland • Denver
Detroit • East Pepperell
Houston • Indianapolis
Jacksonville, Fla. • Louisville
Kansas City • Los Angeles
Memphis • Minneapolis
Mobile • New Orleans
New York City • Norfolk
Oklahoma City • Omaha
Peoria • Phoenix • Pittsburgh
St. Louis • Salt Lake City
Salina • San Francisco
Seattle • Vancouver, Wash.
Wichita • Wilmington, Calif.

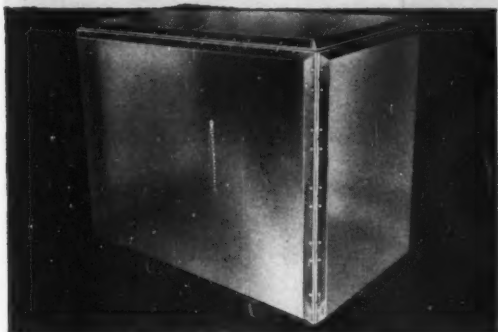
Bemis





Honeycomb core is formed of BAKELITE resin-impregnated material. Core is permanently bonded to facings with BAKELITE resin adhesives to form a rigid, lightweight, high-strength panel.

New honeycomb laminates knock down shipping costs!



Special fasteners make it possible to assemble panels into pressure-tight, moisture-tight, easily cleaned shipping boxes in sizes up to $\frac{1}{2}$ carload capacity.



After delivery, boxes can be knocked down in a matter of minutes to reduce bulk . . . save shipping space and costs. This complete box weighs only 150 pounds, has 30 cubic feet carrying capacity.

Want a shipping container that reduces costs because it is easily taken apart for return shipment in the flat—and can be used over and over again? That's your cue to look into the new honeycomb laminated boxes developed by U. S. Plywood Corporation and made possible by BAKELITE Phenolic Plastics.

This unique engineering achievement provides lightweight, high strength panels that are easily assembled into knock-down boxes that greatly reduce shipping weight—and costs. Moreover, these boxes offer high compressive and bending strength . . . good thermal insulating properties . . . a very low water vapor transmission and high resistance to decay.

BAKELITE Resins and Adhesives are used throughout. The honeycomb core material is formed of special paper stock or cotton sheeting impregnated with

BAKELITE Phenolic Resin. The treated core stock is then cured to desired rigidity after which it is bonded to the aluminum facings with resin-base adhesives.

Honeycomb laminates may have a place in your plans for more efficient distribution. Discover how they can be put to work for you. Write Dept. AK-30.

Data courtesy of U. S. Plywood Corporation,
55 W. 44th St., New York 18, N. Y.



BAKELITE DIVISION, Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, N. Y.

POLYTHENE FILM BY DU PONT

Meets Many Packaging Needs



Tough, durable and protective—Du Pont Polythene Film makes an effective self-selling package for oranges, apples, potatoes, carrots and other produce items

USE DU PONT POLYTHENE FILM when you need a packaging material that is

- Tough, strong, flexible
- Lightweight
- Chemically inert
- Highly resistant to water
- Moisture-vaporproof
- Nontoxic; suitable for use on food products
- Long-lasting—permitting re-use
- Sealable by heat, sewing and adhesives

Du Pont Polythene Film

By the makers of Du Pont Cellophane



BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

Here's the lightweight, low-cost packaging material that's strong, flexible and serviceable for even the larger-size consumer units. Moistureproof Du Pont Polythene Film protects the freshness and flavor of many food products from candy to fruit and vegetables. And its transparency provides the essential quality of a self-selling package.

Because it's tough and not affected by contact with water, Du Pont Polythene Film helps eliminate package failure. Even at sub-zero temperatures or in dry climates, it does not become brittle or deteriorate with age. And its long life gives it a high re-use value for many household uses.

An improved Du Pont process gives this film the extra advantages of better roll formation, freedom from pinholes, and greater uniformity of gauge. It is available from 150 (.0015") to 400 (.004") gauge, in rolls, cut-to-size sheets and bags—either plain or printed.

Du Pont Polythene Film can do an effective sales and protective job for your product. Write today for samples, new descriptive folder and sources of supply. Film Dept., E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

DON'T BE HALF-SAFE!

Beautiful display carton produced with
POPE & GRAY'S-HI-GLOSS* INKS

1. LUSTROUS FINISH
2. SMOOTH LAYING
3. RUB RESISTANT
4. SMOOTH WORKING
5. MAXIMUM COVERAGE

TO BE SURE
USE

HI-GLOSS* OVERPRINT
VARNISH

METLAK* SILVER
INK

METLAK* GOLD
INK

•
P & G CARTON INKS
MADE FOR YOUR
JOB



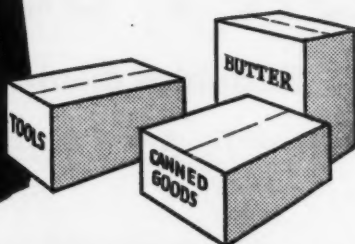
POPE & GRAY, INC.

95 MORTON STREET
NEW YORK 14, N. Y.

Fine Printing & Lithographic Inks

* TRADE MARK REG.

RUGGED PRODUCTION TEAM...



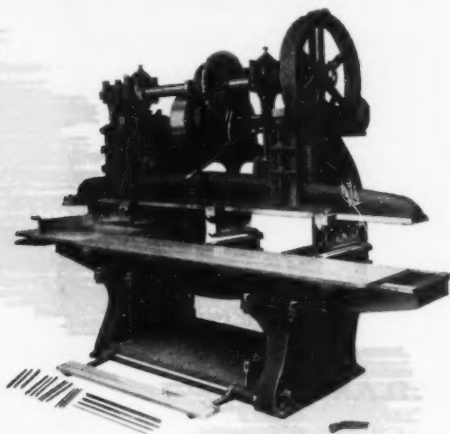
FOR CORRUGATED AND SOLID FIBRE CONTAINERS



HEAVY DUTY COATING MACHINE

New protective coating standards are easily set with a Knowlton Heavy Duty Coating machine. Applies smooth, uniform coating of pump-fed paraffin, wax or similar materials to all types of corrugated and solid fibre containers. Further, will coat one or both sides in one operation. Fully adjustable to apply coatings of any desired thickness. Split coating collars (2" or 3" width) can be furnished to obtain *uncoated* flap sections. Electric or steam heated. Thermostat control optional. Users acknowledge that Knowlton Heavy Duty Coating machine is not surpassed for efficient and economical production.

KNOWLTON ALSO MAKES . . .
Rotary Slitters • Creasers • Bar Creasers
• Set-Up Box Equipment • Spiral and
Convolute paper tube and can-making
equipment • Knowco Gummed Stay
Paper (Brown, Gray, and White)



VERTICAL STROKE
SLOTING MACHINE

Where special slotting jobs come up often—especially short runs—the 100-inch Knowlton Vertical Stroke Slotting machine will turn them out faster and more economically. Quickly adjustable and set up, fast and accurate change-overs. Open frame design enables speedy changes in cutting blanks and knives. This Slotting Machine has a host of features worth an inquiry, for container makers seeking lower costs.

BOSTON
637 Massachusetts Ave.
(ARLINGTON)

**M. & D.
Knowlton**
COMPANY

BROOKLYN
45-53 Beaver St.

CHICAGO
9 E. Clinton St.

TORONTO, CAN.
360 Richmond St. W.

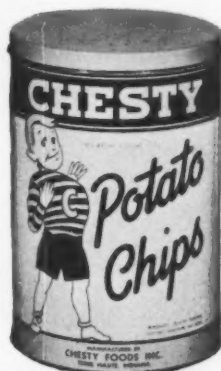
Pacific Coast Representative
A. W. BRINTHALL CO.
Los Angeles, San Francisco, Seattle

ROCHESTER, NEW YORK



**Good bye, Mr. Chips
Keep Dry, Mr. Chips**

MR. CHIPS is big business . . . and competition calls for the best possible packaging of your product. Heekin specializes in metal cans that sell your brand name . . . and protect your product. Heekin lithographed cans keep potato chips fresh and crisp longer . . . every housewife wants one. We'll serve you . . . Just ask us.



**KEEP YOUR POTATO CHIPS FRESH
AND CRISP, DRY AND CRUNCHY IN**

**HEEKIN
CANS**

THE HEEKIN CAN CO.

CINCINNATI 2, OHIO

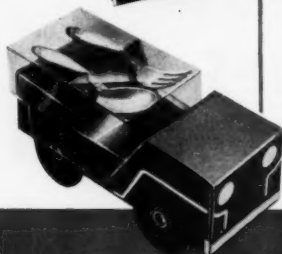


Amazing Chick

*she has to be seen
to be sold*

Great personal saleswoman, this Ta-lula, **BUT** she has to be seen to be sold. That's why they picked out Shaw-Randall to provide novelty **visible** packaging.

If your product needs "eyes on" but "hands off", let us devise the right package. Our complete equipment for set-up box and visible packaging will supply the winning combination.



"How to SELL SILVER"
... another example of
Shaw-Randall inexpensive
novelty packaging.

SHAW-RANDALL CO., INC.

Affiliated with Shaw Paper Box Co.

PAWTUCKET, R. I. New York Office — 545 Fifth Ave.

when they're
"PRINTED BY STANDARD"

your package wraps can't be beat!

This "tip-on" shows you why . . . With their characteristically crisp, sharp printing and vivid, sparkling color—cellophane and glassine package wraps printed by Standard are measurably better than ordinary printing. Why? . . . Because they're made with exclusive printing processes and ink formulations which only Standard possesses.

On counters everywhere competition for your packaged goods is becoming tougher daily. Now is the right time to investigate for yourself the ways by which Standard can help you put more of your products into more customers' hands. Just write for details.



Standard
printing company

PRINTERS OF CELLOPHANE and GLASSINE SINCE 1936
COLUMBUS, GEORGIA

SALES OFFICES: Dallas, Texas—Charlotte, N. C.—Jackson, Miss.

SPORTING GOODS, LOTIONS, ETC.



Visible Quality in the Package

Can Reflect the Invisible Quality of the Product

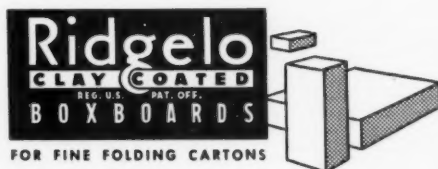
RAZOR BLADES, SHAVING CREAMS, ETC.



Leading Manufacturers of Men's Products,

Recognizing That Fact, Give Preference to

BELTS, SUSPENDERS, GARTERS, ETC.



FOR FINE FOLDING CARTONS

SUPERIOR PRINTING SURFACE ASSURED UNIFORMITY
BRIGHT FAST AND SOIL RESISTANT COLOR
HIGHER VARNISH GLOSS BRIGHTER - SMOOTHER
CUSTOM MADE FOR EVERY ORDER CONTROLLED COLOR MATCHING
LUSTROUS BRUSH FINISHES AND EMBOSSINGS

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives

H. B. Royce, Detroit
Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellogg, St. Louis
Norman A. Buist, Los Angeles

you get

SPARKLE

proven product protection

with packages of

ALCOA
ALUMINUM FOIL

Standouts . . . in any company! Their wrappers* of Alcoa Foil mean real protection, sparkling sales appeal.

In transit, in storage, in the home . . . pure Alcoa Aluminum Foil guards freshness, seals out moisture, blocks absorption of foreign odors.

Leading manufacturers—in many fields—know the advantages of wrapping in Alcoa Foil. Today's customers look for their money's worth outside, as well as inside.

Why not give your product a lift? Write today for names of leading package manufacturers experienced in designing better packages using Alcoa Foil. Address: ALUMINUM COMPANY OF AMERICA, 1760F Gulf Building, Pittsburgh 19, Pennsylvania.

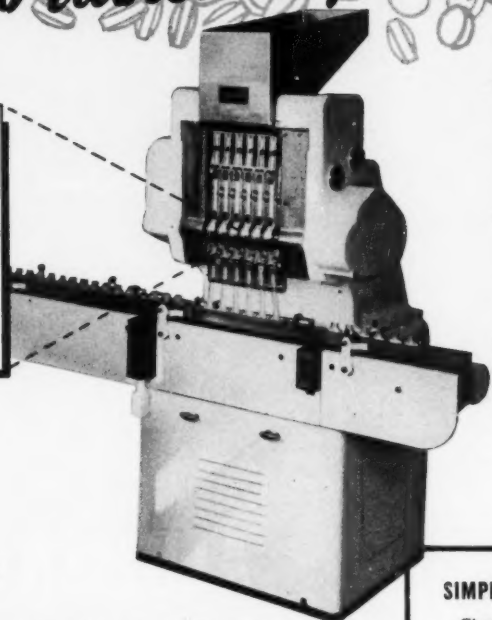


*Wrappers manufactured by Shillmar Products Corp., from Alcoa Foil

US AUTOMATIC MACHINE

Counts and fills up to 360,000 tablets or pills per hour

The tablets or pills are counted by means of mechanical counting wheels with unfailing accuracy; correct count is a mechanical certainty. The tablets drop into the containers individually, thus keeping dusting and breakage at a minimum. If the tablets go into the machine whole, they come out whole.



Model TBS, Straight Line, Fully Automatic

Model TBS, US Automatic Tablet and Pill Filling Machines are designed for high speed, fully automatic counting and filling of tablets and pills and some types of capsules.

Equipped for straight line delivery of containers to and from filling stations, labor costs are reduced to an absolute minimum and packaging made into a single line, completely automatic operation.

Available with many modifications, the machine is ideal either for large volume, maximum production, speed packaging of a few products or for packaging many different shapes and sizes of pills and tablets in a wide range of containers.

Always fast and accurate, the entire machine is functionally designed for versatile yet fool-proof and economical operation. Write today for complete details.

★ The Model TBS fills any count, odd or even, of pills and tablets, coated and uncoated, and some types of capsules, into bottles, cartons, boxes and other rigid containers.

★ Produces speeds of from 60 to 150 filled containers per minute on counts of 12 to 100. Proportionately lower speeds on higher count containers.

★ Is available equipped with 4, 6, 8 or 10 filling chutes, to suit individual volume and speed requirements.

SIMPLE, FAST, CHANGE-OVERS

Change-overs in count, container or product can be made easily and speedily, by the use of quickly interchangeable units. Following are typical change-over times:

Change of count 5 to 10 min.

Change of container . . . 10 to 15 min.

**Change of product . . . 20 to 30 min.*

**(Indicated time applies to change in size or shape of product, includes cleaning of machine, preferably by vacuum, and will vary with conditions.)*



NET & GROSS WEIGHING ★ PACKAGE FORMING & FILLING ★ CARTON SEALING, LINING, WRAPPING ★ BOX MAKING

AUTOMATIC BOX MACHINERY CO., INC.

Owning and Operating NATIONAL PACKAGING MACHINERY CO. ★ CARTONING MACHINERY CORP.

122 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

*Another
Example*

OF GARDNER PACKAGING INGENUITY...

B-G BEST QUALITY
Fresh-Sealed
FLOWERS

A carton that cuts handling and selling time for florists

...delivers flowers greenhouse-fresh

Why couldn't cut flowers be pre-packaged like many other consumer items? This would lessen handling between wholesaler and customer, would speed up retail selling.

This idea occurred to the Berthold-Grigsby Company, wholesale florists, of Cleveland, Ohio, and with Gardner's help they developed a practical package that

keeps flowers greenhouse-fresh—from shipper to florist to customer.

This smart, black 3-piece carton is specially treated to withstand moisture and refrigeration—and when packed and tight-wrapped with cellophane, it keeps flowers in perfect condition. It is also specially constructed to protect delicate blooms against bruising.

Maybe we can add a Sales "Extra" to YOUR package

If you have a product that needs an extra point-of-sales push, a product that's hard to package, or that needs a new packaging idea, get in touch with Gardner. We'll be glad to tackle it. No obligation, of course.



CUTS COSTS... CUTS TIME
on E.C. and L.T. orders

THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboard • 408 Charles St., Middletown, Ohio

Sales Offices in Boston, Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis



Ordinarily, longevity doesn't mean much, but Armstrong glassmakers take a good deal of pride in the fact that glass has been made continuously at the Millville Plant for 144 years and at the Dunkirk Plant for 71 years. The skills, experience, and traditions of fine craftsmanship that have been passed down through the generations from father to son

have much to do with the fine quality of Armstrong's Glass Containers. Ask your Armstrong representative for details on any of Armstrong's glass or closures or write to Armstrong Cork Company, Glass and Closure Division, 2306 Prince Street, Lancaster, Pennsylvania.



ARMSTRONG'S GLASS

Lumarith* Transparent Film

IN THE WINNER'S CIRCLE AGAIN



The 1950 folding box competition again reflects the popularity of Lumarith transparent film. The Grand Prize winner and many other award winners in the window box division boast windows made of Lumarith transparent film.

LUMARITH THE STANDARD OF COMPARISON

- It's dependably crystal clear and satin s-m-o-o-t-h.
- Doesn't sag or wrinkle or pull the container out of shape.
- Takes multi-color printing as beautifully as coated paper.
- Does not become brittle or dry out with age.
- Has a fresh look and a quality "feel".

Let window boxes of Lumarith turn your merchandise into prize winners on the sales counter. If you would like the names of container manufacturers, write: Celanese Corporation of America, Plastics Division, Dept. 8-F, 180 Madison Avenue, New York 16. In Canada, Canadian Cellulose Products Ltd., Montreal and Toronto.

*Reg. U. S. Pat. Off.



Pepperell Blanket—Robertson Paper Box Co., Inc., Montville, Conn.

Sweet potato carton—Bruce Carton Co., Memphis 7, Tenn.

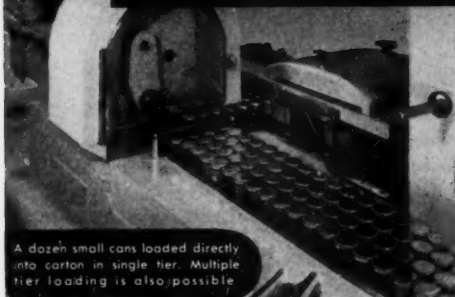
Candy box—Great Lakes Box Co., Cleveland, Ohio

Grape Box—Fleishacker Paper Box Co., San Francisco 7, Calif.

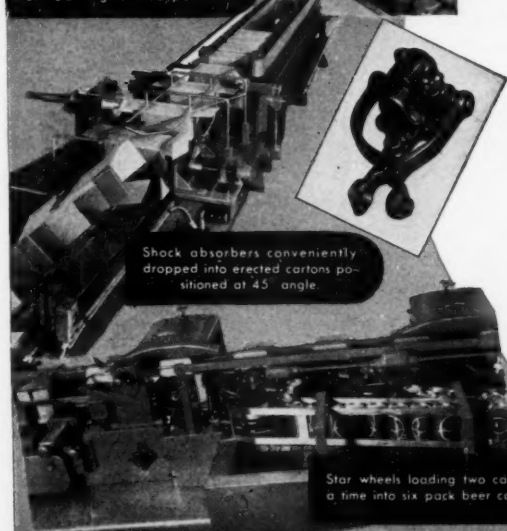
Royal Lace Dollies—Continental Folding Box Inc., Ridgefield, N. J.

Got an Unusual Cartoning Problem?

BRING IT TO ROCKWELL



A dozen small cans loaded directly into carton in single tier. Multiple tier loading is also possible.



Shock absorbers conveniently dropped into erected cartons positioned at 45° angle.

Star wheels loading two cans at a time into six pack beer carton.

What do you want to carton—cans, bottles, vials, tubes, envelopes, solid products? What do you want to insert with your product—circulars, droppers, gaskets, brushes, etc.? Do you want to carton products singly or in multiple packs of one or more tiers? Do you want imprints on either end or side of the package?

No matter what your cartoning problems, we can probably save you money. Our engineers have many talents, years of experience. They have frequently been able to suggest carton designs that made automatic loading practical (see below).

We welcome such assignments. You pay no premium for our consultation. So write, wire or phone us today.

ROCKWELL CONTINUOUS MOTION Cartoning Machines



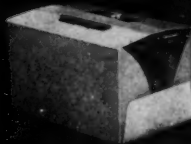
ROCKWELL PACKAGING MACHINES, INC.
P. O. Box 314 Hudson, N. Y.

ROCKWELL DESIGNED CARTONS

Rockwell carton design has permitted the automatic cartoning of many products formerly restricted to packaging by hand.

FOR RADIO TUBES AND OTHER FRAGILE ARTICLES

Integral partition cushions and securely holds fragile articles.



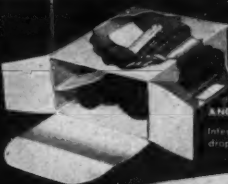
CARRIER TYPE SIX CAN BEER CARTON

Incorporates comfortable handle, permits view of contents, as well as provides ventilation for quick cooling.



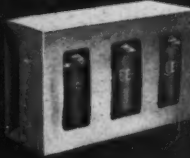
EYEGLOSS TISSUE PACKET

Especially developed to solve difficult packaging problem.



DROPPER AND BOTTLE SEPARATOR

Integral partition separates dropper from bottle and positions them.



THREE CAN DISPLAY CARTON

Windows and open ends afford maximum display area.

Can't beat those

PROTECOTE



NO ODOR
NO TASTE



MOISTURE PROOF
Resistant to changes
in temperature and
humidity.



HEAT-SEAL at cheese
packing temperature.



GOOD ADHESION to cheese
—adequate flexibility
and adhesion at low
temperatures.



**HIGH
STRENGTH**



**ATTRACTIVE
TRANSPARENCY**

Cheese Wraps processed with PROTECOTE meet all requirements which are necessary to preserve the factory freshness of processed cheese. • Available with or without printing. Samples and quotations on request.

GENERAL FELT PRODUCTS

DIVISION OF

STANDARD CAP AND SEAL CORPORATION

68 THIRTY-FIFTH STREET

BROOKLYN 32, N. Y.

FLASH!
 Argentine Patent No. 74095 dated Dec. 14th, 1949 on invention covered by U. S. Patent No. 2,487,400. Canadian Patent No. 463,387 Feb. 28th, 1950. Union of So. Africa Pat. No. 8592 Sept. 21st, 1949. Belgium Pat. No. 382,553 Oct. 15th, 1949. Patents Pending in 12 other foreign countries on this invention.

TUPPER/Seals

air and liquid-tight, flexible covers for Tupperware Tumblers, Canteens, Wonder Bowls, Cereal Bowls and many another container of glass, metal and pottery, the contents of which it is desired to keep fresh and wholesome.

TUPPER/

FORMAL NOTICE!

9th November, 1949

EXCLUSIVE!

U. S. Patent #2,487,400

The Tupper Corporation has attained a position of leadership in this industry by incurring great expense and expending painstaking effort in the development, design, manufacture and exploitation of its many world-known products.

The Tupper Corporation further has anticipated the inevitable attacks to which leadership is subject and has taken measures provided by law to preserve the creative rights to its products, methods and design by patent protection both in the United States and abroad.

Tupper Seals for Tupperware shown in this advertisement are just a few of the forms covered in this manner and are specifically covered by U.S. Patent #2,487,400.

Only the Tupper Corporation, by U.S. Patent #2,487,400 has the right to make, use and vend container closures in connection with any and all types of containers throughout the United States and its territories as covered by the claims of the Patent.

Tupper Corporation will protect, according to law, the exclusive rights above granted

TUPPER CORPORATION

TUPPER CORPORATION

Manufacturers of—CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

FACTORIES: Farmingtonville, Mass., and Cuero, Texas

New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Department A

COPYRIGHT TUPPER CORPORATION 1949

There's a Tupper Seal, air and liquid-tight flexible cover for Tupperware 1, 2, 3 and 12½ oz Tumblers too, and the Tupper Seal, covers many other containers of metal, glass and crockery.

The Tupper Seal, air and liquid-tight flexible cover, specially designed as a dispenser cover for spouted containers holding foods such as syrups, salad dressings, etc.

The cover of the Tupperware brand Tumbler shown here is designed to give similar results as Tupper Seal, air and liquid-tight flexible covers. Keep contents fresh as on other such containers.

These Tupperware 12½ oz Tumblers, air and liquid-tight, flexible covers for Tupperware Cereal Bowls, cover many other products.

The Tupper Seal, air and liquid-tight flexible cover, made for Tupperware 4 oz Tumblers also fits and is sold with all Tupperware Funnel as a bowl when funnels are used as storage containers.

Tupper Seal, air and liquid-tight flexible covers for Tupperware 1, 2, 3 and 12½ oz Tumblers.

The Tupperware 12 oz container is "standard" with the Tupper Seal, air and liquid-tight flexible cover.

The Tupper Seal, air and liquid-tight flexible cover. All cover is used on every Tupperware 20 oz. Container.

The Tupper Seal, air and liquid-tight flexible covers for Tupperware 12 oz Tumblers, Cereal Bowls and other containers of metal, glass or pottery. Foods easily preserved without removing entire cover.

The Tupperware Wonder Bowl is usually fitted with Tupper Seal, air and liquid-tight covers.

BALANCE

Is The Key To Outstanding Performance



**USE M & M HIGH QUALITY WAXES
FOR MAXIMUM PACKAGE PROTECTION**

MOORE and MUNGER Specifications mean PERFECTION
IN PETROLEUM WAX for every packaging need.


Mamspec

Moore & Munger—33 Rector Street New York 6

Does your package make their eyes POP?



Funny how a child's eyes light
up when he sees a good-looking package. Like grownups,
he too, figures it must be just as good to eat. And what a whale of a lot that has
to do with the sale.

Attractive packaging is not solely confined to a smart, colorful wrapper. It takes
machines—like Lynch Wrap-O-Matics—to provide neat, thoroughly sealed
packages and turn them out fast enough to provide wrapping economy
and speedy marketing. Write for details on how Wrap-O-Matics can put
your packaging on the profit side.



PAR AIR
COMPRESSORS



PAR
REFRIGERATION
COMPRESSORS



WRAP-O-MATIC
CANDY & COOKIE
WRAPPING
MACHINES

LYNCH

CORPORATION

PACKAGING MACHINE DIVISION

TOLEDO, OHIO



MORPAC
PAPER PACKAGING
MACHINES



MORPAC
BUTTER & OLEO
CARTONING
MACHINES



GLASS FORMING
MACHINES



INTRODUCTION TO *Beauty*



The soft richness of their BEHRLON-ized packaging gracefully introduces the artistry and charm of this crystal jar and bonbon dish by Virginia B. Evans. Beauty without enhances appreciation of the beauty within.

More and more first-quality products look to BEHRLON rayon flock-coated paper or cloth for eye-appeal in their packaging. Micro-cut in all required lengths and available in 24 attractive colors, velvety-soft BEHRLON flocked box papers and cloths are obtainable from leading manufacturers in the packaging trade.

To prove to yourself what BEHRLON would do to improve the presentation of your product, send us samples. We'll BEHRLON-ize in the colors of your choice. Write us today for the latest color swatch card.

The BEHRLON coated paper used to present Imperial Cathay Crystal manufactured by Imperial Glass Corp., of Bellaire, Ohio is supplied by Nashua Gummed and Coated Paper Co., Nashua, N. H.

BEHR-MANNING • TROY, N. Y.

(DIVISION OF NORTON COMPANY)

Machine made flint glass containers are available in a wide variety of attractive stock designs. This is style No. 431.



**CARR-LOWREY
GLASS CO.**

Designers and manufacturers of fine glass containers

Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART



Artist — Narciso Dobal, native of Puerto Rico

PUERTO RICO — *annual purchases: \$535 million — mostly packaged.*

CONTAINER CORPORATION OF AMERICA



**PROTECTION
AND**

Beauty



* LOBSTER



** PEACOCK



PAPERS

For The FOOD INDUSTRY

Food products keep fresh in their natural state. Nature sees to that. But when they're prepared for human use extra-special care is required to preserve freshness, flavor, and keep out dirt.

Ordinary papers can't do that. KVP specialized food-protecting papers do it to perfection. And KVP artists and printers are noted for designs that add to sales appeal.

Have you any current packaging problems that involve "protection and beauty"? We'll be glad to hear from you.

*A hardshell denizen of coastal waters, having five pairs of legs, with the first developed into claws, or pincers. Very succulent when unwrapped.

INDUSTRIES SERVED

BAKING	MEAT
Bread - Cracker	Packing - Locker
Cereal	Retail

DAIRY

Butter - Cream - Cheese
Ice Cream - Milk

FISH - FRUIT - FROZEN FOODS
POULTRY - SHORTENING
VEGETABLE

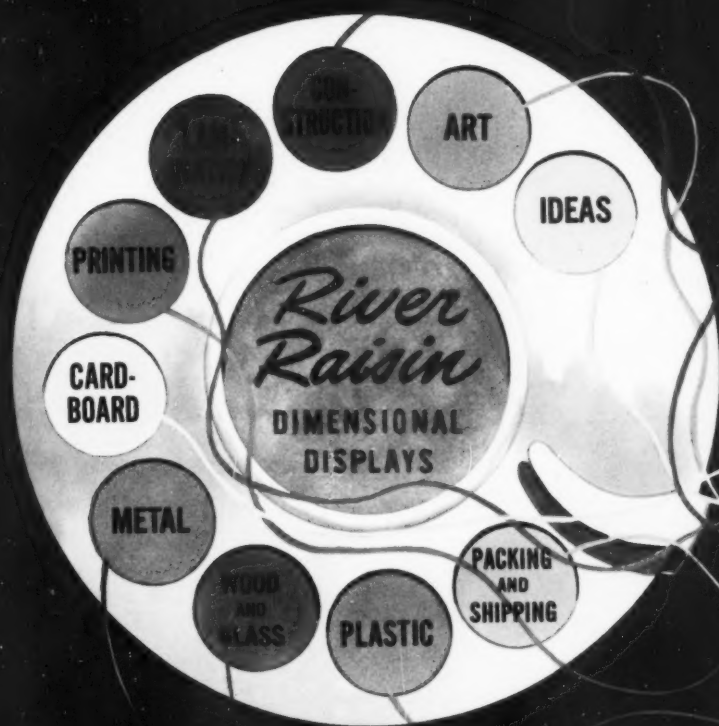
**The male of the peafowl, noted for its tail feathers of striking beauty, highlighted with iridescent, eyelike spots.

Kalamazoo Vegetable Parchment Company

PARCHMENT • MICHIGAN

ASSOCIATED COMPANIES: KALAMAZOO VEGETABLE PARCHMENT CO., DEVON, PENNA.
KVP COMPANY OF TEXAS, HOUSTON, TEXAS
HARVEY PAPER PRODUCTS CO., STURGIS, MICHIGAN
IN CANADA, THE KVP COMPANY LIMITED, ESPANOLA, ONTARIO
APPLEFORD PAPER PRODUCTS LIMITED, HAMILTON, ONTARIO - MONTREAL, QUEBEC

One Call for All



River Raisin has the
country's most complete display
service . . . as convenient
as your telephone . . . our versatile
art staff creates the basic
idea and the dimensional construction . . . our
production experts produce the
quality, finished displays—
DIMENSIONAL DISPLAYS that
attract attention
and sell your product.





We manufacture corrugated and solid fibre shipping containers from materials produced in our own paper mills, thereby enabling us to deliver superior, colorful displays at lower costs to you.



RIVER RAISIN PAPER COMPANY • DISPLAY DIVISION • MONROE, MICHIGAN



Gentlemen:

I would like to know more about your "ONE CALL FOR ALL" Display Service.

We start planning our point of sale campaign on or about _____.

We buy our point of sale on or about _____.

It would be convenient for your salesman to call on us on or about _____.

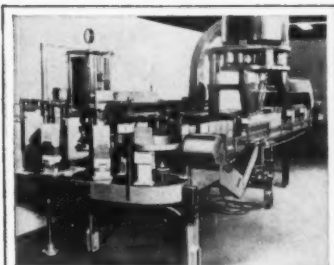
Company Name _____

Address _____ City _____ State _____

Telephone No. _____ Signed _____ Title _____

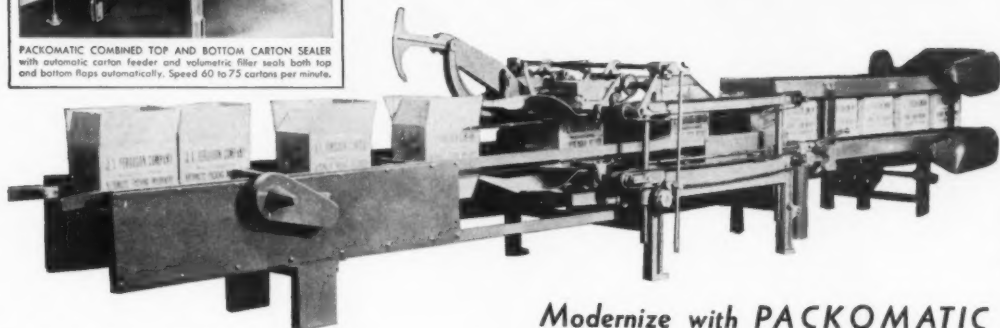
RIVER RAISIN PAPER COMPANY

DISPLAY DIVISION • MONROE, MICHIGAN

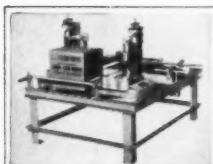


PACKOMATIC COMBINED TOP AND BOTTOM CARTON SEALER with automatic carton feeder and volumetric filler seals both top and bottom flaps automatically. Speed 60 to 75 cartons per minute.

CUT PRODUCTION COSTS AT THE PACKAGING LINE

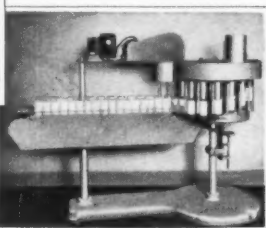


Modernize with PACKOMATIC Automatic Packaging Machinery

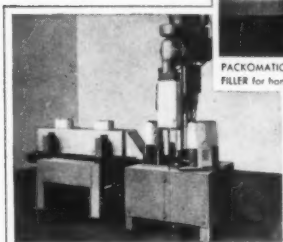


PACKOMATIC'S MODEL 'D' CASE SEALER for paper shipping cartons. Seals tops and bottoms simultaneously—or tops, or bottoms only, if desired.

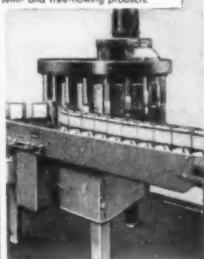
PACKOMATIC IMPRINTER prints data on shipping cases removed from sealer.



PACKOMATIC AUTOMATIC TELESCOPING VOLUMETRIC FILLER for handling semi- and free-flowing products.



PACKOMATIC'S AUTOMATIC AUGER PACKER—WEIGHER for semi- or non-free flowing products.



PACKOMATIC TELESCOPING VOLUMETRIC FILLER for dry products in cases or cartons.

1,500,000 "pancakes" sped from production line to shipping platform every 16 hours, *automatically!*

3,000 corrugated shipping cases packed, glued, closed, sealed, coded, dated and imprinted *per hour*, *automatically!*

This gives you an idea of how PACKOMATIC carton-filling equipment, case packing and sealing equipment, coding (dating) and imprinting equipment helps the packaged goods manufacturer cut his costs, conserve floor space, eliminate semi-productive manual operations.

Ask Ballard & Ballard, Quaker Oats, Colgate-Palmolive-Peet, International Salt, Armour & Company, Schenley Distillers, Standard Brands, Kellogg, and scores of other leaders in the fast expanding packaged merchandise field.

Submit your own packaging situation to a "PACKOMATIC" branch, or direct to Joliet. A request for suggestions incurs no obligation whatever.

Coupon below brings you colorful literature on PACKOMATIC Case Sealers. PACKOMATIC Carton filling and sealing machines, PACKOMATIC imprinting equipment, etc. No obligation whatever for recommendations and suggestions.



PACKOMATIC

PACKAGING MACHINERY

J. L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Baltimore • Cleveland • Denver
New Orleans • San Francisco • Los Angeles • Seattle • Portland • Tampa

J. L. FERGUSON CO.
Joliet, Illinois, Dept. MP 160

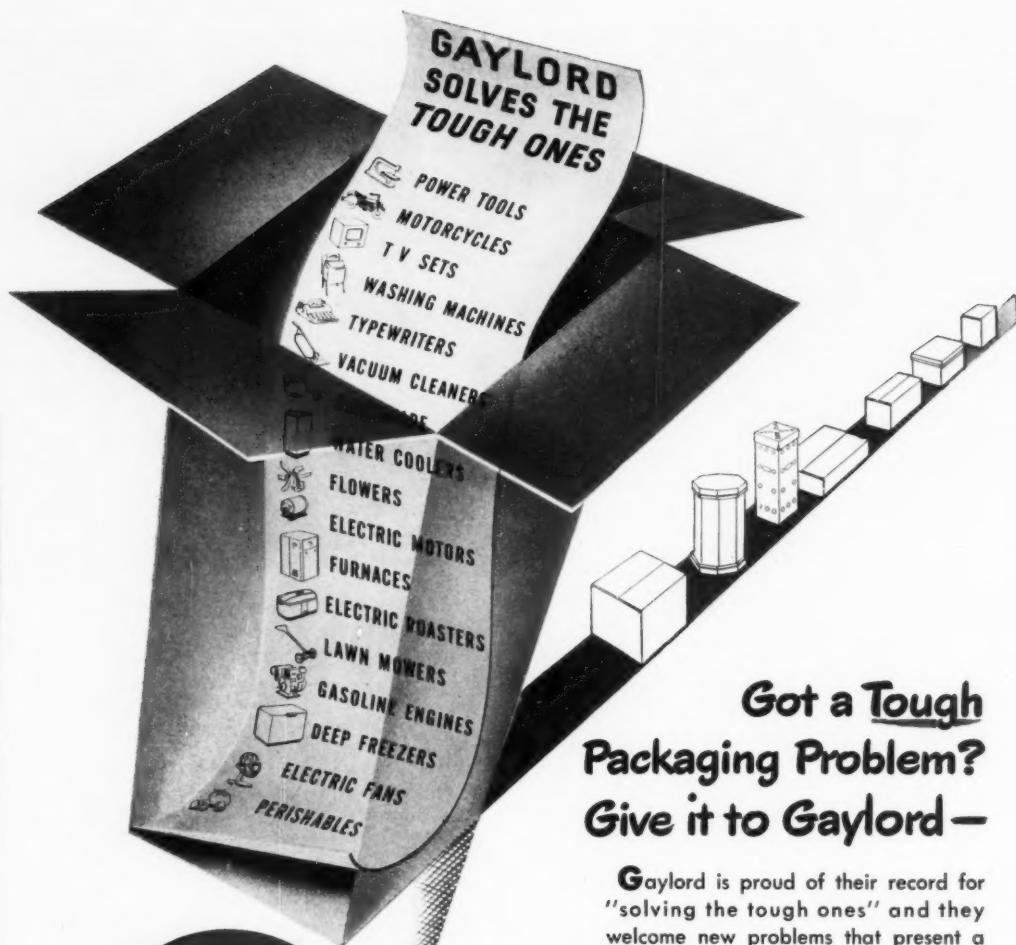
Please send complete data on ☐ Case Sealing ☐ Carton Filling and Sealing ☐ Case Imprinting Equipment.

Company

Address

City

State



Got a Tough Packaging Problem? Give it to Gaylord—

Gaylord is proud of their record for "solving the tough ones" and they welcome new problems that present a challenge to their ingenuity.

So, if you have a packaging problem, call the Gaylord sales office nearest you—discuss your problem in detail with the Gaylord representative—if possible, permit him to send a sample of your product in its present package to Gaylord's Engineering and Research department for analysis. You will get a full report and recommendation.



CORRUGATED AND SOLID FIBRE BOXES
FOLDING CARTONS
KRAFT PAPER AND SPECIALTIES
KRAFT BAGS AND SACKS

GAYLORD CONTAINER CORPORATION

General Offices: **SAINT LOUIS**

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle
Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Jacksonville
Columbus • Fort Worth • Tampa • Cincinnati • Dallas • Des Moines • Oklahoma City
Greenville • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa • Milwaukee
Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro • Sumter
Jackson • Miami • Omaha • Mobile • Philadelphia • Little Rock • Charlotte • Portland

THEY GOT THE FACTS FROM FORBES



ACCENT ON APPEARANCE is the object of this 3-dimensional display on "Vaseline" Cream Hair Tonic. The "just-combed look" and its effect on the opposite sex are clearly reproduced by this compact, 7-color, spirit-varnished unit created and lithographed by Forbes.



ACCENT ON GOOD TASTE is reflected in the handsome artwork and instructive copy of these folders for Taylor Wine Company. Lithographed in four colors on one side and two on the other by Forbes. Taylor's advertising agency is Moser & Cotins, Inc., Utica, N. Y.

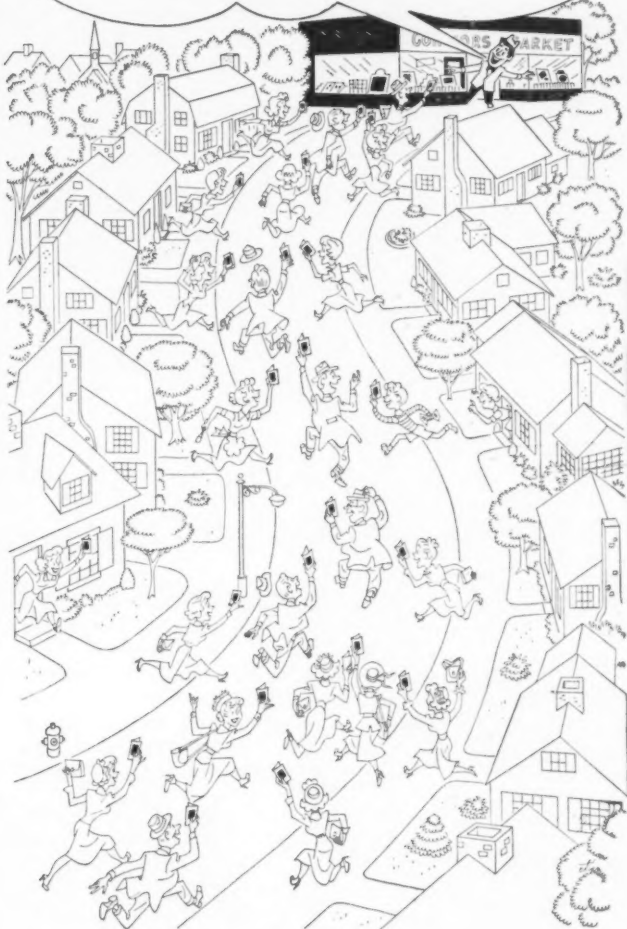


ACCENT ON MULTIPLE SALES is the theme of this package insert punfully suggesting "five good numbers" to help men "keep presentable longer." This point-of-use tie-in with national advertising is a Forbes "mass" production. Mennen's shave products' advertising agency is Duane Jones Co.

ACCENT ON FACTS gives extra impact to Forbes-produced merchandising material. Forbes Facts come from experience, continuing studies and unique facilities in lithography, letterpress, web-gravure and die stamping under one-roof management control. Ask the Man from Forbes to tell you more.

JUNE 1950

**I DIDN'T KNOW THOSE PACKAGE
INSERTS WERE LOADED!**
(with Sales..that is..)



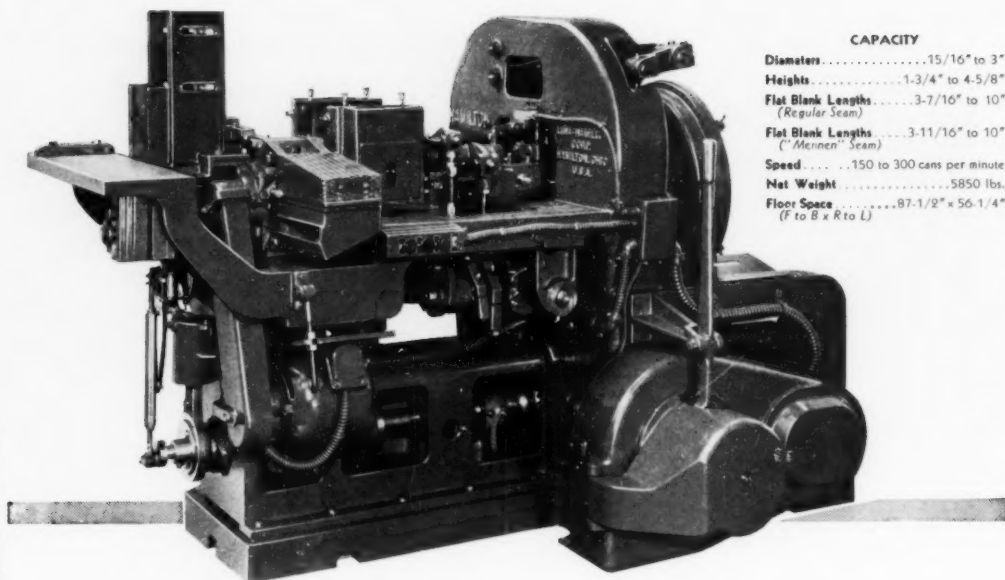
Why surprise your dealers with brisk repeat business on your product when you can easily teach them to expect it? Just join the firms whose package inserts are *impact-packed by the Facts from Forbes* . . . then bragged about! Results are immediate, our clients say.



FORBES LITHOGRAPH CO.

NEW YORK • CLEVELAND • BOSTON • CHICAGO • ROCHESTER

Delivers Merchandising Impact



CAPACITY

Diameters.....	15/16" to 3"
Heights.....	1-3/4" to 4-5/8"
Flat Blank Lengths (Regular Seam).....	3-7/16" to 10"
Flat Blank Lengths ("Mennen" Seam).....	3-11/16" to 10"
Speed.....	150 to 300 cans per minute
Net Weight.....	5850 lbs.
Floor Space (F to B x R to L).....	87-1/2" x 56-1/4"

HIGH SPEED—FULLY AUTOMATIC

Bodymaker with beading attachment for talcum-type cans



This fully automatic bodymaker has been developed primarily for dry package work using the "Mennen-type" side seam. It will

turn out square, rectangular, round or oval can bodies and may also be converted for plain side seam.

One of several important features is the adjustable beader built into the machine itself. This attachment will make one bead in the can body near the top and start the top edge inward for subsequent cover or breast assembly. The tooling can also be arranged for inward or outward flange.

Either lithographed or plain sheets can be handled. Feed is completely automatic. A roll dopping attachment applies compound to both hooks

when required. The machine is equipped with a 3-hp motor for main drive and a 1-hp motor for flexing operation—complete electrical controls include electric interlocking for shutting down machine in case of jams or doubles.

The 101 bodymaker is a precision product in every respect and will substantially increase output. It is built by Lima-Hamilton's Hooven, Owens, Rentschler Co. Division at Hamilton, Ohio.

* * *

For complete information and specifications, write to Roland H. Johnson, Sales Manager, Can Machinery Department, Lima-Hamilton Corporation, 60 East 42nd Street, New York 17, N. Y.

Chicago Sales Office: 400 West Madison Street, Daily News Building, Chicago, Illinois.

DIVISIONS: Hamilton, Ohio—Hooven, Owens, Rentschler Co.; Niles Tool Works Co., Lima, Ohio—Lima Locomotive Works Division, Lima Shovel and Crane Division.



PRINCIPAL PRODUCTS: Hamilton-Kruse automatic can-making machinery; Hamilton heavy metal stamping presses; Niles heavy machine tools; Hamilton diesel and steam engines; Special heavy machinery; Heavy iron castings; Weldments; Locomotives; Cranes and shovels.

FOR AEROSOL FILLING

LOOK TO

Continental Filling

**Continental Filling
is the Largest Aerosol
Contract Filler in
the World**

Continental can handle practically every
low or moderate pressure aerosol
container manufactured

**CENTRALLY LOCATED
IMPERATIVE FOR NATIONAL
DISTRIBUTING HOUSES**
(Drop Shipping Service Supplied)

Research Department
devoted exclusively to
Aerosols—Insures Con-
trolled Quality



Remember

1. Experience Counts.
2. We operate strictly as a filler and do not market products in competition with our customers.

SEND INQUIRIES TO: DEPT. MP-1



Continental

FILLING CORPORATION

123 N. Hazel Street

Phone 742

Danville, Illinois

Complete

PACKAGING FACILITIES

as they should be—

UNDER ONE ROOF

TRANSPARENT BOXES

Philadelphia's largest and most modern plant means acetate boxes at low cost. The acetate box division of the Barnett organization completes the picture of an extensive packaging program. This department is under the supervision of expert craftsmen, pioneers in the field, experienced in the production of the simplest to the most complex type of acetate container, including ovals, rounds, squares, oblongs and odd shapes.

FINE SET-UP BOXES

The fine set-up paper box department is equipped to produce the ultimate in exquisite packaging. Barnett personnel has the skill and know-how to meet the most exacting demands in fine quality, hand-made boxes. The most intricately designed cosmetic box — the satin or velvet covered snap-hinged jewel box — any and all problems are well within the scope of the Barnett staff of designers and plant personnel.

MACHINE-MADE BOXES

The Barnett Company can boast of half a century of quality production in the machine-made box field. This department is equipped with the newest high-speed, precision machinery, capable of wrapping the shallowest to the deepest full-wrap unit. We are completely equipped for printing, silk-screening, deep embossing and hot leaf stamping.

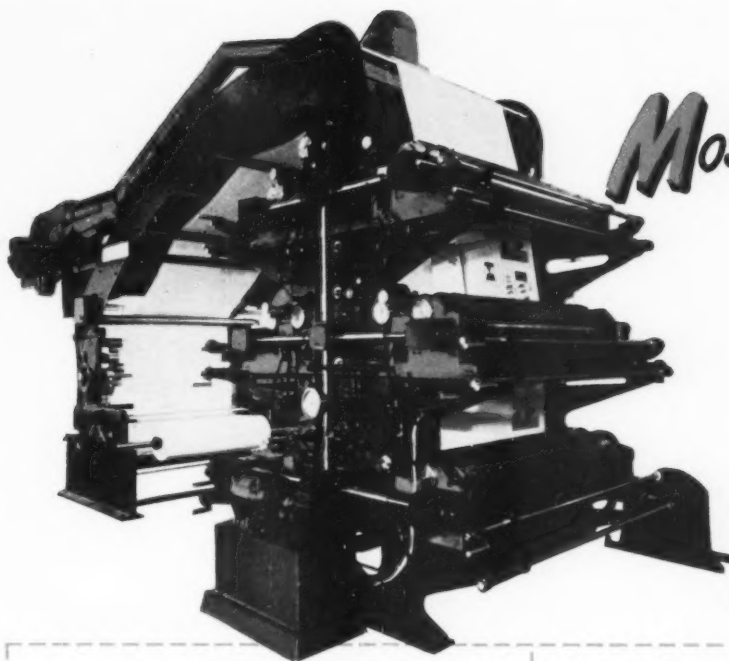
The Barnett "three departments in one plant" set-up makes possible the efficient, economical, all-inclusive production so important for low-cost packaging. Let Barnett redesign your package and increase your sales.

NEW YORK OFFICE
130 West 42nd Street
New York City, N.Y.
Chickering 4-8678

SAMUEL
BARNETT
COMPANY

22nd Street and Lehigh Avenue, Philadelphia, Pa.

OUR 50th YEAR OF PROGRESSIVE PACKAGING



*Most advanced
press
of its
type
ever
developed*

**Only the KIDDER
MASTER ANILINER
Brings You All These Benefits:**

- Heavier, more precision built press throughout
- Metered ink fountains — constant ink flow at all speeds
- Unique drive — fountain rollers continue running when press stops
- Greatly simplified hydraulic-cylinder release system
- Improved drying system — partially dries each color as printed, then completely dries, seals, remoistens and cools printed web after all colors have been applied
- Independently driven ink fountains — way shaft and gear box system uses only hardened gears, running in oil; not geared to plate cylinders
- Anti-friction bearings throughout — easy running, minimum power consumption, long life of moving parts

**Kidder Salutes
Standard Cap and Seal Corp.
On Its Purchase of Kidder's
100th Aniline Press!**

The remarkable growth of Standard Cap and Seal Corporation's Flex Vac Division has been one of the outstanding developments in modern packaging.

Specializing in the highest quality work to meet the exacting requirements of today's packaging and merchandising needs, Flex Vac numbers among its customers an impressive array of America's greatest brand names. Only a Kidder Press could deliver the high quality printing these customers demand.

The delivery of Kidder's 100th press to Standard Cap and Seal Corporation is an event which Kidder Press Company marks with pride . . . and congratulations!



KIDDER
Manufacturer of "3
Point" Presses — so-
called because they
fulfill the three major
requirements for per-
fect printing.

The Kidder Master Aniliner is available in 52-inch and 65-inch printing widths and in four- or six-color frames. For further information write:

KIDDER PRESS CO., INC.

DOVER, NEW HAMPSHIRE

A. E. MARCONETTI, INC.
Empire State Bldg.
New York 1, New York

MACHINERY SERVICE CO.
P. O. Box 33
Los Angeles 11, California

**CONTROL OVER
THE PAPER**

**PROPER
DISTRIBUTION OF
INK**

**ACCURACY OF THE
IMPRESSION**





There are a lot more where these came from!

Here's just a sampling of the dozens of different kinds of cans made by Continental. We're sure we have one that could have been tailor-made for your product. Why not put your packaging problems up to our technical staff. They know how to fit packages to products, shipping requirements and sales conditions. And our lithographers have an old-fashioned pride in their work that shows up in crisp, colorful designs. With plants strategically located from coast to coast, we sincerely believe we can give you a new idea of service. Give us a call!

*You can't beat
Continental as
a dependable
source of
supply!*

CONTINENTAL CAN COMPANY

Eastern Division: 122 E. 42nd St., New York 17

Central Division: 135 So. La Salle St., Chicago 3

Pacific Division: Russ Building, San Francisco 4



Formula for a
Packaging Bombshell
**... Located Design
plus High Fidelity
plus Continuous Roll
Application**

Here's the 5-color "box of the year" in the shoe trade. It's made by the Old Dominion Box Company for Craddock-Terry Shoe Corporation, both of Lynchburg, Va. and *printed by Nashua.*

This type of box wrap is newsworthy because it *combines* located design on both top and body of the box, the highest order of pictorial reproduction and



Tip-on — a cutout from box top illustrated in photograph

continuous, automatic roll application. Newly developed electronic controls assure unusual uniformity of color from run to run and within the run. The result is eye-appeal of greatest possible impact — packaging that *pre-sells the customer* before the product is shown or demonstrated. Add the attendant economies of no labels and no labeling operation and perhaps *you too* will find that an exploratory talk with Nashua about your packaging will be to *your* advantage.

NASHUA BRANCH OFFICES
Baltimore • Chicago • Detroit
Los Angeles • New York
Syracuse, N. Y. • Philadelphia
Columbus, O. • San Francisco



NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE



"Joe's O.K. He's one of us..!"

What does he mean—"One of us"?

You know what he means. Joe spells his name right. His religion is right. His folks come from the right part of the world.

Yes, maybe Joe is O. K.

But the fellow who says "He's one of us"—that fellow isn't O. K. He's intolerant. Blind, unreasoning prejudice makes him think he's better than somebody else.

In your employ there may be some prejudiced folks like this. They may work for you . . . but they don't work *together with others* for you. Not very well they don't. And you ought to do something to show them

how wrong they are. You ought to do it for America's sake . . . for your own sake.

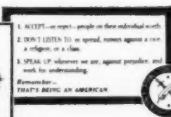
The Advertising Council is asking you to join hands with it in promoting *fair play* to all regardless of race, religion or national origin.

Display one of these posters in your office or your factory. Let men and women of good will know that there are other men and women of good will who believe as they do.

Help make yours a more friendly community in which more personal and direct methods may flourish and take root.

It will serve you while it serves America.

Post these
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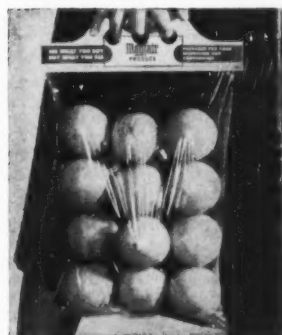
DENT-O-PAK Bags Boost Sales plus BIG Dealer Savings Over Bulk!

Several million Dent-O-Pak bags using Goodyear Pliofilm have already been supplied to the apple packers in 3# and 5# sizes and this coming season The Denton Corporation has developed plans that

will make it possible for apple packers to pack in Dent-O-Pak bags at a cost equivalent to the bulk pack. The dealer can save about 40 cents a box handling bagged apples as against bulk.

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More and more oranges are being packed at the dealer level in Dent-O-Pak Pliofilm bags. Some enterprising orange packer, packing a good quality orange, can cash in on the very real demand for bagged oranges.



FOR APPLES



FOR LIMES

California limes are moving in large volume in Dent-O-Pak Pliofilm bags. Florida lime growers are also beginning to pack in these bags.



DENT-O-PAK BAGS*

Have these exclusive advantages

1. Dent-O-Pak Pliofilm bags save fruit and vegetables from dehydration and flavor loss.
2. They greatly increase shelf life of all produce.
3. They speed up packing operations.
4. They decrease dealers' handling costs.
5. The housewife can see exactly what she is buying.
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MAIL COUPON FOR DETAILS NOW!

Please send samples and information on packing

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... and now for ASPARAGUS

(NEW THIS YEAR). This is a new item being packed in the Dent-O-Pak Pliofilm bag. One of the largest California packers has purchased a Dent-O-Matic packaging machine designed for this purpose and finds the combination of this machine and the Dent-O-Pak bags the ideal solution for the packaging of this fine vegetable.

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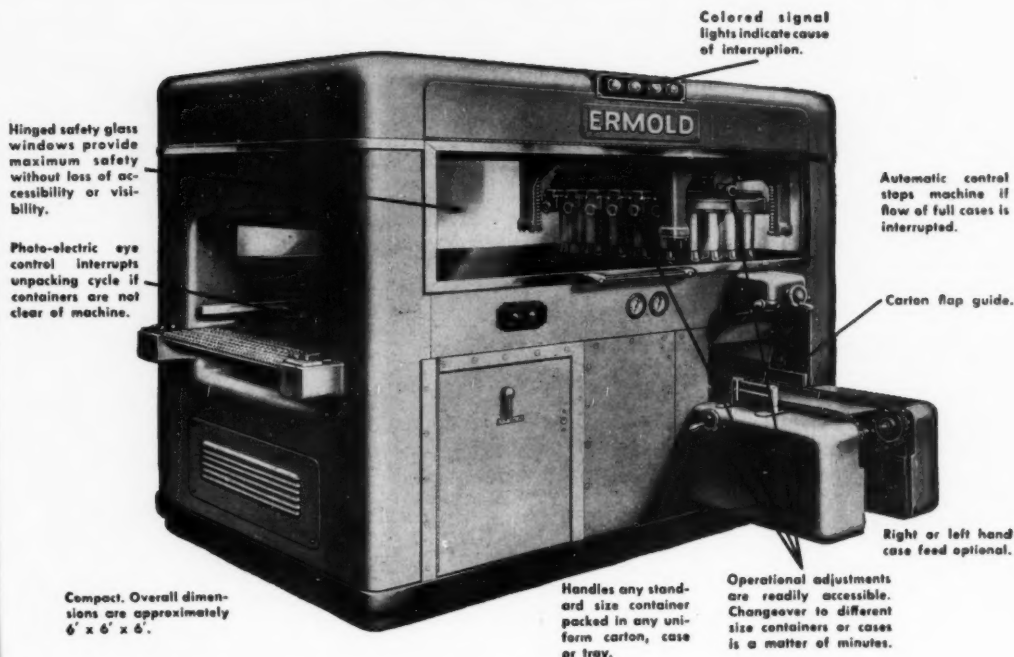
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only protect employees, but also prevent damage to the machine.

- Output of the Ermold Automatic Unpacker is ample to meet most practical operating needs.

The new Ermold Automatic Unpacker is now being manufactured in quantity. Your Ermold representative will be glad to give you all the facts and show you how this new machine can be put to work in your plant. Write us today.

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JUNE 1950

85

Noon Hour Rings the Bell



Noon Hour Brand products
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When it comes to product display and brand identity, these packages are hard to beat. The unlabeled jars permit unobstructed inspection of the mouth-watering herring delicacies and the colorfully decorated closures leave no doubt about the brand.

The closures, incidentally, are the famous Crown Screw Caps. The lithographed decorations speak for themselves. The features that have made these caps

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Maybe this package suggests an idea that can be applied to your own products. We'll be glad to assist you in working out the details. There is no obligation.

CROWN CORK & SEAL COMPANY

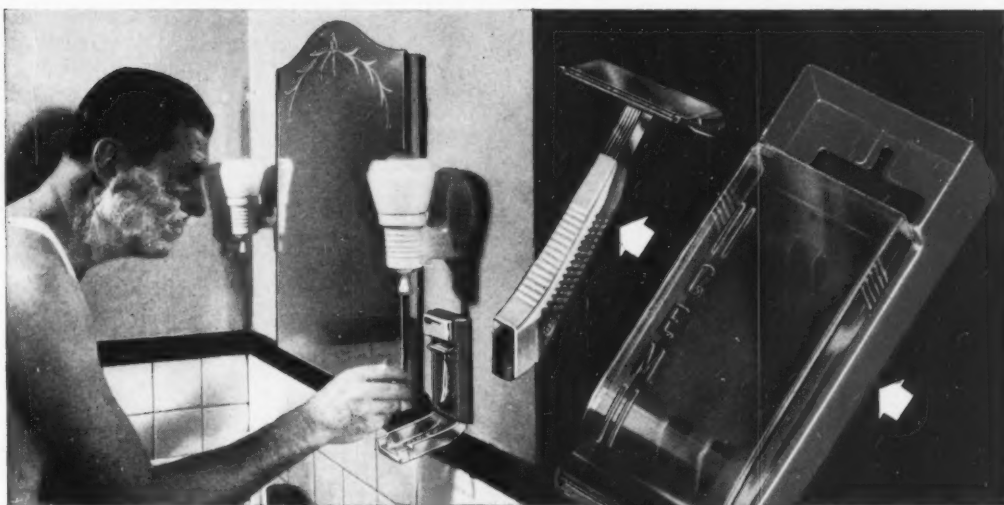
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World's Largest Makers of Metal Closures

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CROWN CLOSURES

To shave production costs GEM used Koppers Polystyrene



THIS new De Luxe Gem Feather Weight Razor is packed with value. To keep production costs in line with its low retail price, American Safety Razor Corporation made extensive use of Koppers Perfected Polystyrene.

THE HANDLE is molded from Koppers Polystyrene 8X. High heat distortion temperature . . . fast, easy moldability . . . light weight (the entire razor weighs only an ounce) made Polystyrene 8X the ideal material for this application.

THE CASE is molded from Koppers Polystyrene 3X. The transparent, hinged cover—made of crystal-clear, jewel-like Polystyrene 3X—displays the product perfectly. The case proper is a lasting, stable red—no weak, limpid coloration. It can't rust, corrode or deteriorate.

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You, too, can take advantage of the lower material costs, lower molding costs and improved product appearance that result from using Koppers Perfected Polystyrenes. Mail the coupon below for a copy of "Koppers 1950 Polystyrenes."

The De Luxe Feather Weight Gem Razor is a feature of Gem's 50th anniversary sale. Plastics molder: American Safety Razor Corporation, Brooklyn, N. Y.

KOPPERS POLYSTYRENE gives you all these advantages

Low cost
Light weight—more pieces per pound
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Please send your booklet on Koppers 1950 Polystyrenes.

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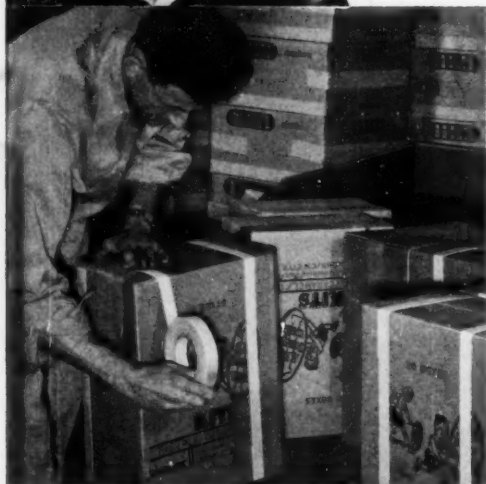
Company.....

Address.....

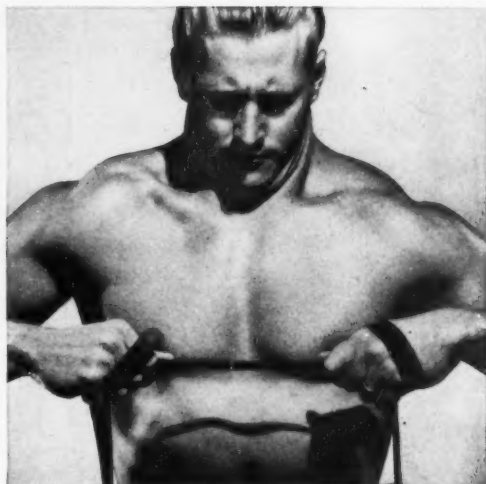
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Candy goes to Cape Town in cartons strapped with Tape!



SOUTH AFRICA NEXT STOP! Cartons of Kits banded with "SCOTCH" Brand Filament Tape No. 880 at Fair Play Caramel, Inc., Johnson City, N. Y. Cape Town dealer reports: "Tape-strapped cartons received in much better condition . . . please protect future shipments in this same way."



1949 MR. AMERICA CAN'T BREAK IT! Secret of tape's strength is in the filament construction. Over 5,000 rayon filaments for each inch of tape's width. That means up to 5 times the tensile strength, 50 times the tear-resistance of most high-strength tapes now available to industrial users for their heavier packaging.

Address: **Minnesota Mining & Mfg. Co., St. Paul 6, Minn.**

☐ Please send me a sample roll of "SCOTCH" Brand Filament Tape No. 880 for testing purposes.

☐ Please have a Tape Engineer call.

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MAIL MONEY-SAVING COUPON. Experienced Tape Engineers will be glad to help you with your heavy packaging problems—show you how to reduce greatly shipping damage caused by usual strapping methods. Try "SCOTCH" Filament Tape No. 880 on your next job. Or better still, compare it today!



Made in U.S.A. by **MINNESOTA MINING & MFG. CO., St. Paul 6, Minn.**, also makers of other "Scotch" Brand Pressure-Sensitive Tapes, "Scotch" Sound Recording Tape, "Undersal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives.

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these fish land customers!



No ordinary lure separates the customer from his money these days. Here you see Milprint's beautiful multi-color printing on Cellophane, ushering in a new era in seafood merchandising.

Like products in a dozen fields, frozen fish fillets are an impulse item that must pack plenty of "buy-me-now" appeal. Which means the package must be an eye stopper, get over brand and product identity quickly and carry instructions for the product's use.

No matter what you package—seafoods or textiles, candy or tobacco—Milprint—the nation's foremost packaging organization, can help you build in more sales lure. Why not call your local Milprint man today?

Use Milprint

"follow-thru" service

Booklets, car cards, wall and window displays help sell your packaged products. Milprint can plan and produce them all for you.



*This insert printed by Milprint, Inc.

Printed Cellophane, Pliofilm, Acetate, Glassine, Plastic Films, Foils, Saran, Folding Cartons, Lithographed Displays, Printed Promotional Material

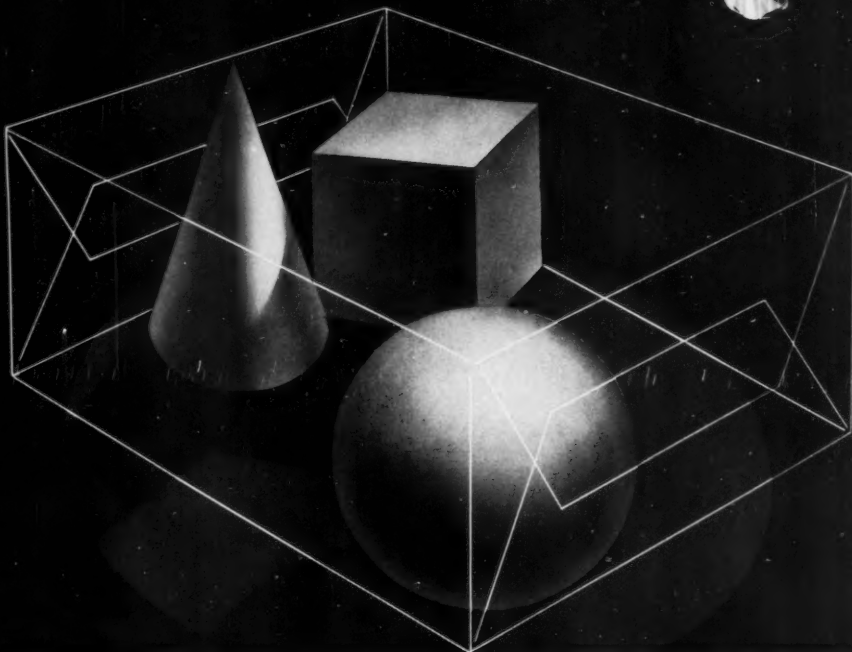
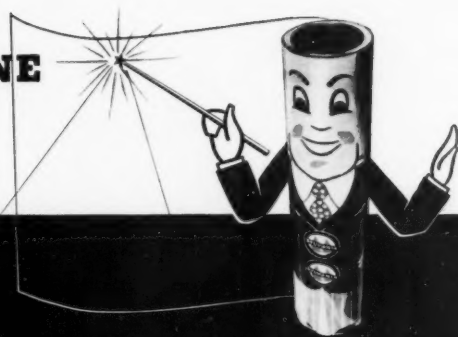
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SYLVANIA CELLOPHANE

throws new light
on packaging design



Many a bright packaging idea would have died on the designer's board—were it not for economical Sylvania Cellophane. This versatile film naturally lends itself to sales-making ideas. That's because it's almost infinitely adaptable to every product's need. It comes with controlled moisture protection—in different gauges. It heat seals strongly and instantaneously either in hand-

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The fractional package

MULTIPLE PACKAGING TAKES A REVERSE

TACK: NOW THE STANDARD PACKAGE IS DIVIDED INTO SMALL, PROTECTED UNITS

For several years an outstanding trend in consumer packaging, frequently pointed out in these pages, has been in the direction of *multiple* packaging—the bundling, boxing or taping together of multiple units of the standard package to encourage larger unit sales, usually with a price inducement. The success of half-dozen and dozen units of such impulse items as candy bars, cigarettes and beer in supermarkets is a familiar example, although the practice has spread far beyond that field.

Now there is a distinct new trend which, in effect, is multiple packaging in reverse. For want of a better word, we call it *fractional* packaging. We mean the breaking down of the standard package into two, three, four or more units of use—usually with the prime objective of preserving freshness of unused units, but certainly with the added advantage of convenience to the user. In some cases such packages can be broken by the retailer, if desired, to provide a smaller unit of sale; in other cases the standard or master package is broken only by the consumer and the sole purpose of subdividing the contents is to provide longer shelf life in the kitchen cupboard—usually through wrapping and heat sealing of the fractional units in waxed paper, cellophane, glassine or other protective material.

The advantages of fractional pack-

aging, then, are two of the basic objectives of all packaging: (1) protection and (2) convenience.

The basic convenience idea of the fractional or "breakable" package is familiar to retailers. The dozen egg carton, designed to be broken in half for half-dozen sales, and the standard butter carton, containing four wrapped quarter-pound prints, are familiar examples. But the idea of protective sealing of fractions for unit-by-unit

use in the home is new and popular.

To the bakers goes credit for launching the current trend on bread, crackers and cookies. Now the idea is spreading to dozens of other products in other industries—wherever preservation of freshness, flavor and crispness is important. (The article "Triple-Sealed Cigars," starting on p. 96 of this issue, shows a precedent-setting example in the tobacco field). Consumer enthusiasm is such

FOUR-IN-ONE packaging idea which has gained almost universal acceptance in the cracker business is rapidly spreading to many other items where freshness of the product may be retained for a longer period of time by the use of several small packages within a larger one.





FOUR ¼-LB. TRAYS of Puritan marshmallows, individually wrapped in cellophane and then overwrapped in 1-lb. units, provide the opportunity for a freshness theme in merchandising that is increasing sales of marshmallows tremendously, says Shotwell Mfg. Co., Chicago, makers of the product.



"DAISY FRESH" is Kellogg Co.'s selling theme for eight individual-serving packages of Corn Flakes wrapped together in cellophane.

that it will pay every packager to consider carefully the current examples and their possible application to his products.

Crackers started it

The real swing to fractional packaging got under way during the past two years with the introduction of the 4-in-1 package for soda crackers—four ¼-lb. cellophane-wrapped packages of crackers in a pound carton: one for immediate use, with the others to be stored and kept fresh in the remaining three packages for future use.

One of the pioneers was the Schultze & Burch Biscuit Co., Chicago, which introduced its "Flavor Kist" square saltines in such a package in 1948. One of the contributing factors to this new merchandising feature has been the recent development of cellophane wrapping equipment which permits the wrapping of crackers "nude"—that is, wrapping the ¼-lb. units without the use of the paper-board backing formerly necessary.

Since the appearance of the Schultze & Burch package two years ago, some 20 or more biscuit companies have adopted this method of packaging for soda crackers, graham crackers, sugar wafers and other similar types of baked items. The Ralston Purina Co. is experimenting with the packaging of Ry-Krisp in three and four units to the package in order to retain crispness to the last serving.

Two of the packaging-machinery companies have already built a number of high-speed machines adapted for wrapping crackers in the nude and it is reported that one of the largest biscuit companies right now has on order more than a dozen new machines to wrap fractional packages.

The promotional advantages of such packaging appear to be tremendous. Almost in sight of the Navy Pier during the recent AMA National Packaging Exposition in Chicago this spring was an illuminated sign over Michigan Ave. reading, "Sawyer's Baker Boy Crackers—extra thin—four ¼-lb.

packages cellophane wrapped," showing how attention to the new packaging feature is directed to the consumer.

Twin-pack bread

The idea of splitting a sliced loaf of bread into two halves and wrapping each half separately inside one over-all wrap, originated just before World War II, was one of most striking innovations in fractional packaging that has received wide acceptance in the baking industry. Without reducing the unit of sale, this twin-pack aids the baker in meeting the de-



CHEESE ASSORTMENT contains three flavors of cheese, shaped to fit most crackers when sliced, individually wrapped and transparently overwrapped.

COOKIE PACK contains six individual snack packages, cellophane overwrapped. Each may be opened as needed, while others remain sealed.



TWIN-BAG package for Tritzels is said to keep the product fresh longer because only one bag need be opened at a time.

mand for a smaller loaf and offers the consumer the convenience of keeping half the loaf fresh while the other half is being used, thus reducing the likelihood of a stale end. This packaging method also provides a means for merchandising two types of bread within the same wrapper—half white and half whole wheat, for example.

Marshmallows and pretzels

The Shotwell Mfg. Co., Chicago, is pioneering fractional packaging for its Guaranteed Fresh Pack of Puritan Marshmallows. The package consists of four 1/4-lb. boats of marsh-

mallows, each individually wrapped in cellophane, then overwrapped in cellophane as a 1-lb. unit. The company has two types of packs done in this manner: one of all white marshmallows and the other packed half-and-half—a combination of white and rainbow-colored marshmallows in five different flavors.

Shotwell is selling this package as a 1-lb. unit. The company says that it may be split up by the retailer and sold in individual 1/4-lb. units if desired, but the main convenience is for the housewife in that she can use a quarter pound of marshmallows at any time without fear of the others going stale.

The company claims the package keeps contents fresh at least a month longer than any other marshmallow package on the market and has gone all out in guaranteeing freshness of the marshmallows in this package indefinitely. A feature of their campaign is a shipping case printed in three colors to look like a giant size of the package, effective for mass display.

Test campaigns in several markets indicate that the Puritan package is an outstanding success, increasing the company's sales of marshmallows tremendously. Retailers have a new merchandising idea and consumers have been quick to accept a product they can buy in economical quantity because it will stay fresh.

The boats for the marshmallows are purchased flat and set up automatically in the Puritan plant. After hand filling, they are automatically

wrapped, first individually, then four filled boats together. The open boats give excellent visibility to the product, which is a decided display advantage for winning impulse purchases.

Campfire Marshmallows are also being successfully merchandised in similar pound units of four 1/4-lb. fractional packages.

In Lansdale, Pa., Perfect Foods, Inc., has discovered that pretzel sales may be increased by the fractional packaging idea. This company's Tritzels are now appearing in what the company calls its "twin-bag" box. The outside carton has not been changed, but when it is opened the customer now finds the pretzels packaged in two 1/2-lb., heat-sealed, laminated-glassine bags. The company reports that repeat sales are on the increase wherever the new package has been introduced.

The Tritzels bags are filled manually, automatically heat sealed, then placed by hand in the cartons, which are sealed on a standard carton sealer.

Cereals, powders, cheese

The fractional-packaging idea has obvious applications in the cereal field. For some time it has been used extensively for the packaging of varieties of different cereals individually cartoned, usually 10 in one package, by such firms as General Foods, Quaker Oats and the Kellogg Co. Currently the Kellogg Co. has seized on the freshness angle of the fractional package in cereal merchandising.

Kellogg is just introducing in test

varied applications of fractional packaging



PHOTOS COURTESY DU PONT.

VISIBILITY is provided for colored margarine by 1-lb. units containing four cellophane-wrapped 1/4-lb. prints overwrapped in transparent film with tear tape. These photographs are from a collection of suggested packaging ideas prepared by one of the leading cellophane suppliers.

SUGAR WAFERS in this automatically wrapped fractional package with four inner packs stay fresh longer. Package gives visibility and tear tape makes for easy opening.

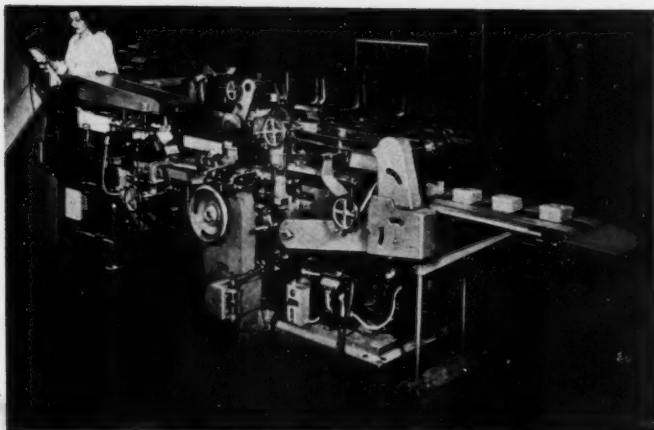


PHOTO COURTESY PACADSE MACHINERY CO.

NEW AUXILIARY FEED on machine for wrapping $\frac{1}{4}$ -lb. units of crackers in the "nude," automatically counts proper number for $\frac{1}{4}$ -lb. wrap and deposits them into feed conveyor of wrapping machine. Machine features spring-mounted folding and sealing line to prevent crushing of crackers. This installation is at Schulze & Burch Biscuit Co., Chicago.

markets a new package containing eight individual-serving sized cartons of cereals overwrapped with printed cellophane, called "Handi-Pak." In this case the cereals contained are all the same—that is, eight packages of corn flakes, eight packages of Rice Crispies, etc. They are stacked upright inside the wrap so that on the shelf the complete package appears to be about the same size and shape as the standard Kellogg's Corn Flakes carton.

The theory behind this new package is the same as that for the $\frac{1}{4}$ -lb. packaging of crackers. It breaks up the standard unit into individual servings so that the remaining individual packages will retain their freshness until opened. The promotional theme is: "8 packages Kellogg's, Daisy Fresh."

Everyone is familiar with packages of gelatin powders and soup mixes packaged in individual envelopes, several to the carton so that one may be used while the others are kept sealed. Sanalac Dairies, Inc., Madison, Wis., markets its Sanalac dehydrated milk product in three envelope packages to the carton, each one containing a sufficient quantity to make one quart of milk. They may all be used together, or the housewife may open one, keeping the others closed until later.

A clever idea for a new fractional cheese package has also been sug-

gested. Three flavors of cheese are included in a transparent-wrapped assortment of prints, shaped square to fit most crackers when sliced. The consumer not only gets an assortment of three types of cheese in one package, but the added convenience of cheese in a form that may be easily and quickly served without any product waste.

Drugs and toiletries

In addition to the many variations of the package-within-a-package for the food field, the idea has spread to other industries such as drugs and toiletries.

The drug field has long been a user of unit packaging for singly packaged doses of medicines, packaged together in a larger container. Band-Aids and other adhesive bandages are also perfect examples. The consumer has use for only one at a time, but the rest must be kept sterile and clean in the package unit until needed. Such items as Vaseline Shampoo powders are fractionally packaged in envelopes sold three to the carton, each one containing just enough for a single shampoo.

Break-apart packages

Popular with the retailer in this trend to fractional packaging is the standard unit that may be broken up into smaller fractional selling units. Such fractional selling packages have

many economic advantages. They provide a convenient smaller unit for the small family, the live-aloners or the apartment dwellers who prefer to buy in smaller quantities. They also provide popular-priced smaller selling units when sales are slower and money tighter.

Fractional packaging has been a merchandising factor in butter packaging for years—four $\frac{1}{4}$ -lb. prints to the pound—making a unit that may be broken up easily by the retailer to sell four separate $\frac{1}{4}$ -lb. packaged units. The same idea is now being introduced for the packaging of colored margarine with emphasis on the transparent package of four overwrapped, individually packaged $\frac{1}{4}$ -lb. prints so that the shopper may see the color through the package.

Another excellent example is the break-apart carton recently adopted by Brown & Williamson Tobacco Co. for Raleighs, Kools and Viceroy's, which may be sold either as a standard carton containing 10 packs of cigarettes or broken apart to sell two complete units of five packs. (See MODERN PACKAGING, May, 1950, p. 95). It is believed such a packaging device tends not only to increase the one- or two-pack sales, but is aimed to pick up additional sales where a 10-pack unit would not be feasible. Also it has the advantage of maintaining the 10-pack unit of sale, at the same time offering the retailer a convenient way to sell a five-pack



THE STORY of the 4-in-1 package is well told to the consumer on Carr Consolidated's "Crackin' Good" saltines carton.

unit without the necessity of introducing a special five-pack package as some of the other cigarette manufacturers have done to meet this new trend in consumer buying habits. (See "5-Pack Cigarettes," MODERN PACKAGING, Nov., 1949, p. 78.)

A supplier's suggestion for cigars is a standard box with the cigars in two inner trays, each separately over-wrapped with cellophane and opening tapes. The label insert calls attention to this new packaging idea of protection: one pack that may be opened while the other is kept closed; one tray that the dealer may sell separately if desired, yet maintaining the full appearance of the open box display until the other half is sold.

In the beverage field, Cott Bottling Co., Inc., Manchester, N. H., recently adopted 12-oz. non-returnable bottles for a line of 17 soft-drink flavors which the company is marketing in new 24-bottle cases that may be separated by the retailer into two 12-bottle, carry-home cartons. Distribution of this new package line was started in New England during the winter and the non-returnable bottles, plus the convenience and popularity of the break-apart take-home carton, has been a big factor in building up sales for this new line of products. A similar idea has been used by brewers in the merchandising of beer and ale.

Frozen-food units

The fractional package has been suggested as a possible solution to some of the packaging problems in the frozen-food field. There is no standard-sized package for frozen foods, due to marketing problems in various areas and merchandising practices of various packers. This lack of standardization, it is said, poses many serious problems for refrigeration warehouses, due to the loss of valuable space when package sizes are not correctly planned in dimensions for economical loading on standard-sized pallets.

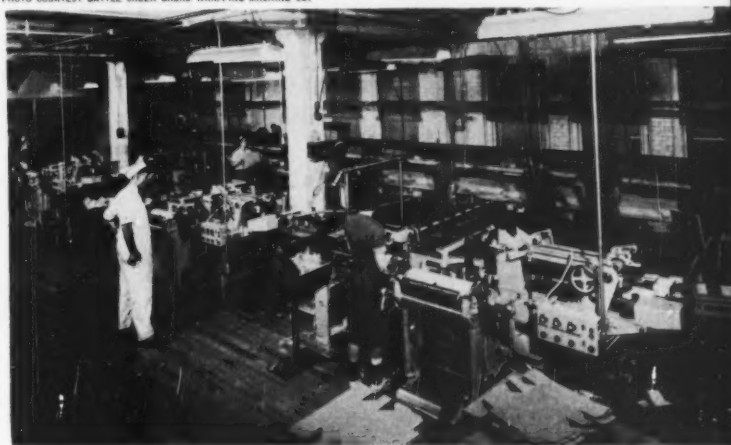
If some standardization could be arrived at in consumer packaging, many of the size problems in distribution could be solved, it is believed. But no package has been devised to meet the needs of every family requirement. The average frozen-vegetable package, for instance, is too large for a two-person family, too small for a slightly larger family—yet too large to encourage the buying of two packages.

The whole problem might be solved by the development of fractional frozen-food packages, perhaps planned for breaking apart, like egg cartons, into units sufficient to serve two persons or four, etc. The consumer might then be able to buy one unit, two units—or multiples thereof as needed. The dimensions of the units might be so standardized that when packed for shipment and storage, they could fit

so many to the standard case that could be palletized without wasting space.

Such fractional packaging is worth consideration by the frozen-food industry. It must, of course, be such that it does not put too great a burden on the product, yet efficient to achieve the savings that could be made in shipping and refrigeration warehousing. The (This article continued on page 210)

PHOTO COURTESY BATTLE CREEK BREAD WRAPPING MACHINE CO.

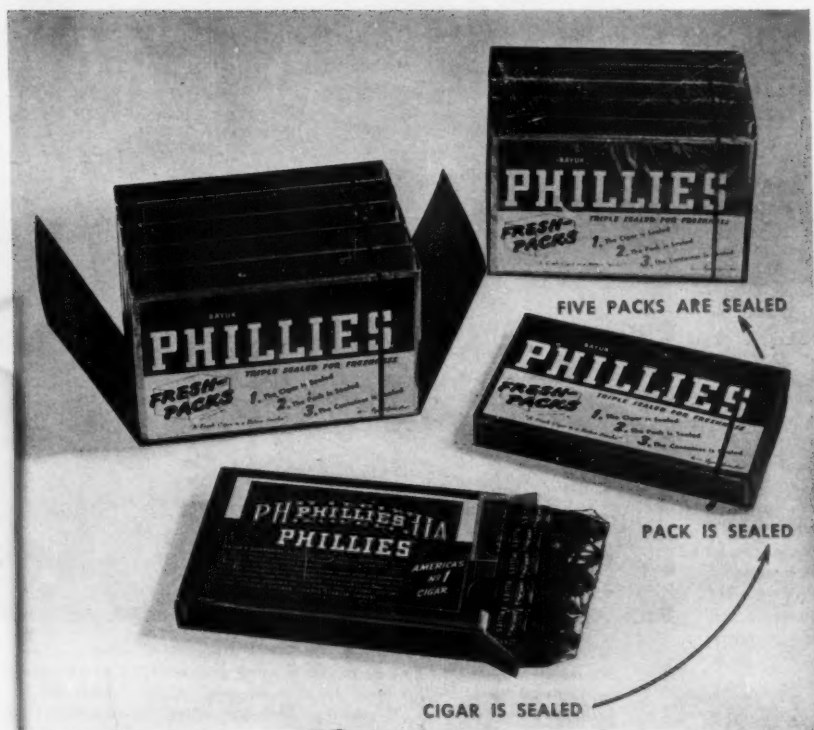


MODERN INSTALLATION in the Perfection Biscuit Co. plant at Fort Wayne, Ind., shows the type of machine which pioneered the 4-in-1 soda cracker packaging. Machines of this type are used for the Weston Big 4 package shown on page 91 and for Kellogg's Corn Flakes packages.



BREAK-APART case holds 24 bottles of beverages. Retailer may separate it into two 12-bottle carry-home cartons. This fractional packaging idea has been an important factor in promoting a new line of beverages being marketed by Cott Bottling Co., Inc., Manchester, N. H.

Triple-sealed



SALE BY FIVES is one objective of the Phillies Fresh Pack. Preconditioning of cigars makes possible a three-stage hermetic sealing in cellophane: first, the individual cigar; second, a tear-tape wrap on the carton of five; third, the overwrapping of five cartons in U-board. The shelf life is estimated at about six months.

Times have changed since Thomas Marshall uttered his famous phrase. What this country needs and wants today, Bayuk Cigars, Inc., believes, is a good ten-cent cigar. In Phillies, Bayuk has long had such a cigar; its claim that Phillies is "America's No. 1 cigar" is backed by a large share of the nation's 10-million cigar smokers, who have kept the brand consistently among the top sellers.

Yet Bayuk has not been content with the knowledge that Phillies, when they leave the plant, are the best ten-cent cigars that modern methods can produce. What happens to the cigars down through the long, dehydrating chain of distribution is something over which they have had little or no control. In some cases cigars may be properly handled in humidified rooms and showcases by distributors and dealers and move

rapidly into the customer's hands; in other cases they may stand for weeks or even months in the flavor-sapping dry air of a corner grocery or restaurant.

Search for improvement

Several years ago, Bayuk set out to find some way to keep Phillies factory fresh, regardless of environment or length of storage, through any conceivable distribution period right up to the final smoking.

A series of tests convinced the company that conventional cigar-packaging methods, hide-bound by tradition, were inadequate for the job they sought to do.

So Bayuk now has made a break with tradition, discarded the wood-type 50s box for a large percentage of its production of ten-cent Phillies, and staked the reputation of

its biggest seller on a triple sealing in cellophane, designed to hold moisture content and flavor under all conditions, and a thoroughly modern method of merchandising.

Today Phillies, preconditioned to a precise 16% of moisture, are going out of the Philadelphia plant individually wrapped and sealed in moisture-proof cellophane, packed by fives in tuck-end folding cartons that are in turn wrapped and tightly sealed in cellophane with a tear-tape opening and finally gathered five cartons of the fives in a printed U-board and wrapped and sealed again in cellophane.

The dealer can sell the entire, compact of 25s; he can break the pack to sell the popular, handy, pocket-sized cartons of five or he can break the carton to sell one or two cigars separately.

cigars

IN A BOLD BREAK WITH TRADITION, PHILLIES DROPS THE BOX

AND BANKS ON THREE CELLOPHANE WRAPPINGS TO PRESERVE FRESHNESS

In any case, the flavor-sealing protection of the cellophane is broken down gradually and is not finally lost until the cigar is at the point of being smoked.

This, then, is the carefully considered answer of one of the industry's biggest producers to a many-faceted problem that has plagued cigar makers for years.

Problems and answers

How tightly should a cigar be sealed? This argument has been raging since the cellophane tube was introduced more than 20 years ago. A hermetic seal on a freshly made cigar sometimes traps too much moisture and causes mold and off-flavors; most manufacturers therefore use a light heat seal, or "tack" seal, along the length of the cigar tube and leave one or both ends unsealed so the cigar can "breathe." Such a package has little function; freshness depends upon the ambient rather than the contained atmosphere. Danger of tearing the delicate cigar wrapper leaf in removing firmly sealed cellophane is another reason which has been advanced for the light seal.

Bayuk meets this problem by a pre-conditioning process. After two days in the conditioning room the moisture content of Phillies is reduced from the average of 18% at time of manufacture to an ideal 16%—just enough for full flavor, yet not enough to create a mold hazard. Thereafter the cigars can be hermetically sealed in their triple wrap of moistureproof cellophane with confidence that they will neither mold nor dry out, regardless of the atmosphere in which they are stored. The individual cigar tube is completely heat sealed down its length and at both folded-over ends, but the special cellophane used (300 MT-32) has a seal coating which, while adequate for normal handling, will break apart readily on actual opening without the danger of any damage to the cigar itself.

Will the consumer accept cigars in a package radically different from the

traditional cigar box? This is the bugaboo that has held back functional packaging in the cigar industry. Of course, the real wood box, for reasons of economy, has been missing from all but the highest-priced cigars for years—but the fibre box has been carefully wood-grained and made into such a skillful imitation that the average smoker of cigars probably isn't even aware of the change which has been made in the package.

Cigar makers have reason to be wary, for previous attempts to introduce different package forms (tins, glass, paperboard) have usually been unsuccessful and sometimes downright disastrous. But these package variations (except in the case of metal and glass humidior canisters, which were usually too costly) offered the

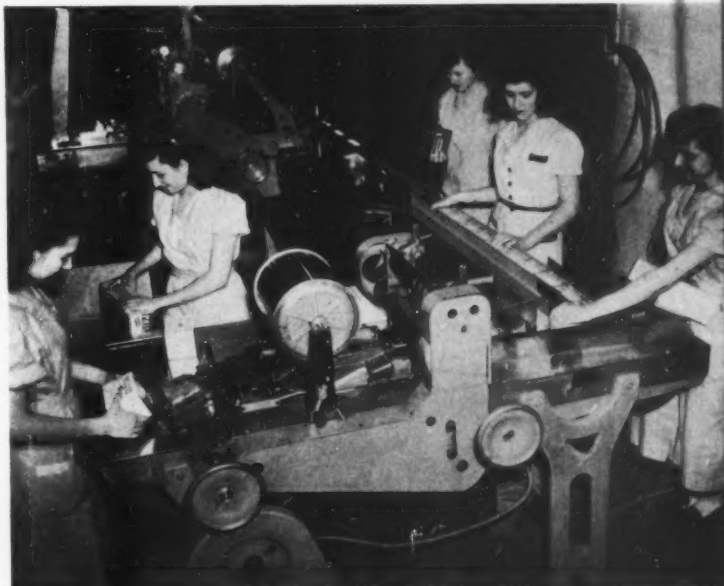
smoker no advantage—merely novelty. The cigar smoker doesn't seem to care much about novelty.

Bayuk, however, is banking on the smoker's appreciation of the keeping qualities of the Fresh-Pack, as the new triple-sealed cellophane package is called, to outweigh his love of tradition. Each 25-package and each carton of five Phillies plays up the protection story, tells the smoker that Fresh-Packs are "Triple-sealed for freshness: 1. The container is sealed. 2. The pack is sealed. 3. The cigar is sealed." Consumer and dealer advertising stresses the same theme.

Sales appeal

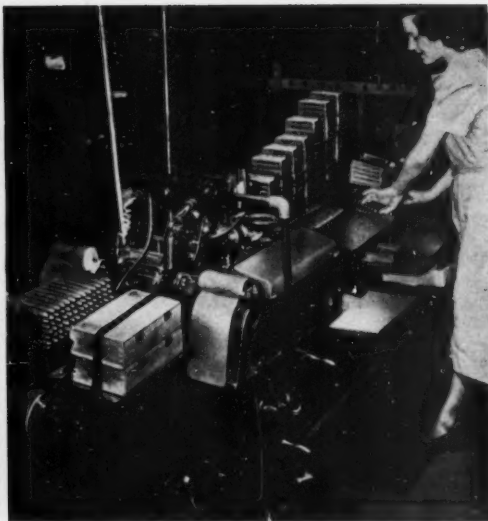
There is convenience, too, in the five-pack carton that fits nicely in the pocket and reinforces the cigars

CARTONS ARE WRAPPED individually by automatic machine in background, then moved by fives into semi-automatic machine in foreground, where a U-board is applied (right), cellophane overwrapped and heat seal completed by hand before the pack goes into the shipping case.





FIRST STEP in Fresh-Packs operation is setting up of the cartons on the machine illustrated above. This unit opens the blanks and glue seals the carton flaps at one end.



CONVENTIONAL machine automatically wraps and bands each cigar; operator shoves five cigars into open carton. Note cedar boxes (left) in which cigars are conditioned.

against crushing, and this inducement to the purchase of five cigars at a time, instead of the usual two or three, is not unpopular with the dealer. Dealers believe, too, that they will catch many more quantity sales with the complete Fresh-Pack unit of 25 cigars than they would with the usual box of 50. The smoker can lay in as large a supply as he wishes,

without fear of staleness. Finally, the packaging is as economical in appearance as it is in fact; the customer is assured that he's not paying extra for a fancy container. Consumer awareness of packaging costs is a factor being taken more and more into consideration by packagers in all fields.

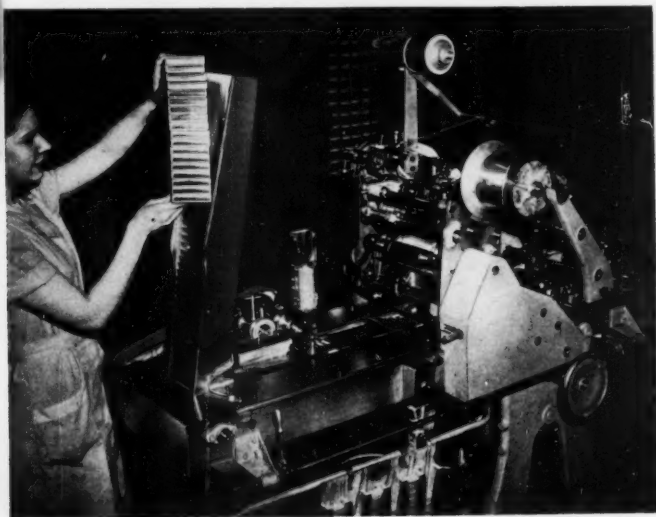
The proof of acceptance is in the

marketing and Bayuk officials report happily that since the Fresh-Packs were introduced, sales of cartons of five Phillies have more than doubled in those markets where there was a direct comparison. Distribution is now national. And tests have established that the triple wrap maintains the cigars in fresh condition for at least six months—far longer than the previous packaging and well beyond the average turnover period.

Production steps

Production of the Fresh-Packs at Bayuk's Philadelphia plant is still partly on a semi-automatic basis, but steps are now being taken for complete mechanization.

After machine manufacture, the cigars are packed temporarily in hinged cedar boxes; then they are sent on conveyor belts to the conditioning room. It takes, on the average, 48 hrs. to lower moisture content to the desired 16%. Then the cigars



AUTOMATIC machine applies revenue stamp to five-cigar carton, then overwraps and seals it with red tear tape. Its speed is 150 packages a minute, five times as fast as the five-carton bundler, for synchronization.

are sorted according to color, re-packed in the cedar conditioning boxes and then dispatched to the packaging line.

The first step is the individual cellophane wrapping and banding, which is done on a standard, combination machine. The operator of this machine slides five wrapped cigars into the small carton, which has been previously set up and one end glued on a small box machine.

The filled cartons are taken by truck to the final packaging line. The fully automatic carton wrapper and the semi-automatic cellophane bundler, both standard machines, are set up as a continuous unit. Both of these machines use 300 MST-52 cellophane—a stronger-sealing type. Revenue stamped, wrapped and sealed with a red cellophane tear-tape on the automatic machine, the cartons emerge flat and move along a conveyor belt until they hit a trip which stands them on end.

Here an operator picks up five packs at a time, inspects them and starts them into the bundling machine, while another operator drops the printed U-board in place in front of each stack.

The cellophane over wrapping is an automatic operation, except that the final end fold and seal must, at present, be made by hand. The completed 25-pack passes immediately to a fourth operator who packs it in a shipping case.

The speed of production is 30 a minute, although the carton wrapper that supplies the bundling machine must, of course, work five times as fast to keep pace.

The industry's answer?

Bayuk views the new package as one of the answers to the problem of sustaining the volume of cigar sales, which have been slipping steadily from their postwar peak.

The whole industry is in the same boat and hence is watching the Phillies experiment with as much enthusiasm as Bayuk officials themselves. "Even the competition is cheering" the results, said *Business Week* recently in commenting on the development, pointing out that Bayuk "has given the industry one of its only real gleams of hope." Indications are that other cigar makers shortly will introduce similar packages.

CREDITS: Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Cartons and U-boards, U. S. Printing & Lithograph Co., Cincinnati, Ohio. Automatic wrapping machine (SFF-6 with tear-tape) and semi-automatic bundler (SUS-6), Scandia Mfg. Co., North Arlington, N. J. Individual cigar cellophane-wrapping mechanism, International Cigar Machinery Co. (subsidiary of American Machine & Foundry Co.), New York. Cigar-banding mechanism, International Banding Machine Co., Brooklyn, N. Y.

Easy-opening tab on Leda's "Best Seller" cigar

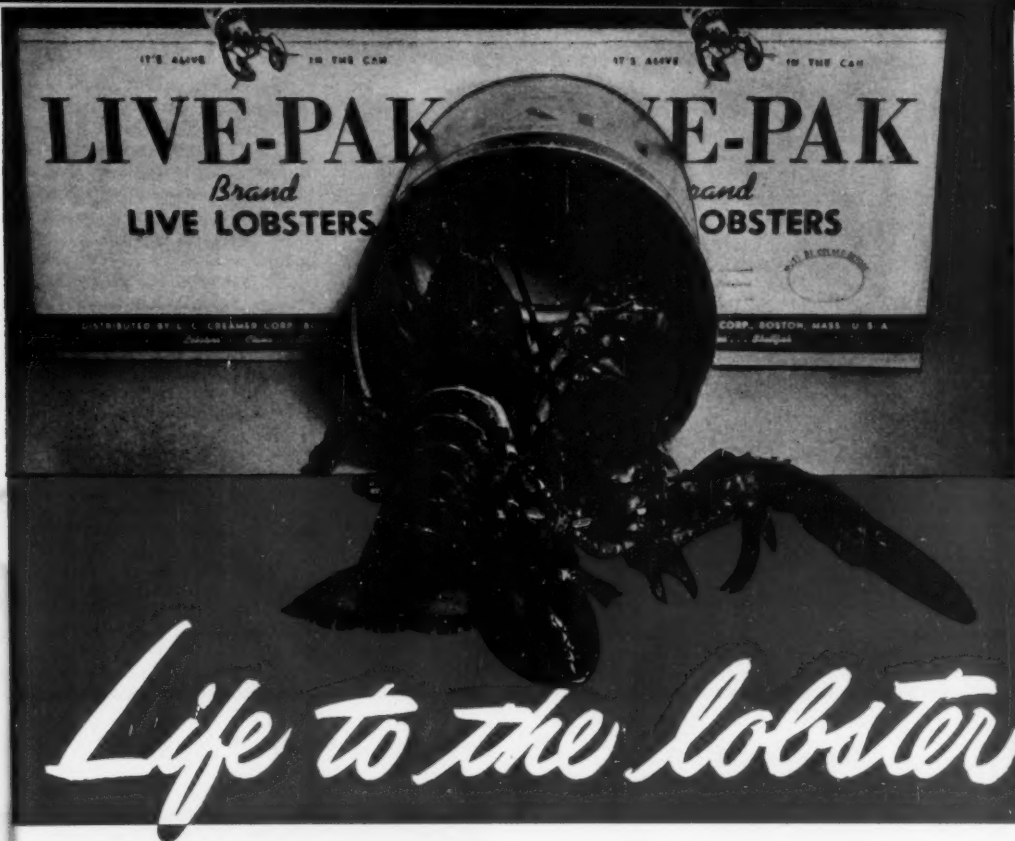
Stronger sealing and easy opening for the cellophane cigar tube is achieved by Bobrow Bros., Inc., Philadelphia, on its Leda brand with a special tear-tab attached to one edge of the cellophane. The tab of red cellophane is affixed to the wrapper by a specially developed device attached to the conventional cigar-wrapping machine. At the same time that the tab is sealed on, two quarter-inch score marks are made at the edge of the wrapper, 1 1/4 in. apart, above and below the tab. When the tab is pulled, the wrapper tears easily at these score marks and a strip 1 1/4 in. wide is torn off completely around the cigar, splitting the tube into two sections. Thus, it is unnecessary to open either end of the tube to extract the cigar and the ends as well as the side seam can be firmly heat sealed. No force that might damage the cigar leaf is required to remove the wrapper.

Along with this device, developed by their cellophane supplier, Bobrow Bros. are introducing an unusual book-fold carton for 20 Leda cigars. A folding box of patented construction, the hinged carton opens flat into two open-windowed halves; when closed, the two halves come together like the pages of a book and a flap extension on one side tucks into the other side for a snug closure. The box is made of a single sheet of board, surface laminated with red-printed, gold-colored aluminum foil. Lettering, trademark and decoration are embossed, including the phrase "A best seller" on the spine of the "book."

CREDITS: Cellophane and tab, Sylvania Div., American Viscose Corp., New York. Book-type carton, Reynolds Metals Co., Richmond, Va. Wrapping machine, Package Machinery Co., East Longmeadow, Mass.



BOOK-TYPE HINGED CARTON of patented folding construction packages 20 Leda cigars, individually packaged with the new tear-tab cellophane wrap. Made of a single sheet of board surface laminated with embossed aluminum foil, the carton opens up into two open-windowed halves.



Lobsters—ferocious and rugged as they may appear—are actually fairly delicate creatures and shipping them alive constitutes a major packaging problem. Any marked change in the environment will result in rapid death; Atlantic lobsters, for instance, cannot survive in the Pacific Ocean. At least two new techniques have been developed for getting them alive from the major source—the Atlantic Seaboard, particularly New England and the Maritime Provinces—to the hungry United States public. One of these techniques, the Live-Pak method, involves use of life-sustaining solutions about which little has been disclosed technically, but which seem to work for lobsters and may have possibilities for other perishables.

Fishermen catch lobsters in wooden traps which they inspect and empty at regular intervals. After capture, the shellfish are transferred immediately to either storage tanks or "pounds." Lobsters are generally

kept in the storage tanks for only a few days prior to shipment inland. Sea water, to provide oxygen and remove waste products, is constantly pumped in and out of these tanks which hold two or three thousand pounds of lobsters.

Prior to 1946, the majority of shipments to inland and West Coast points were made by rail. To reduce mortality and weight losses to a minimum, a fairly elaborate packaging method was developed. Approximately 50 lbs. of live lobsters are packed in slack-cooperage barrels. Each barrel contains a specially constructed 16-in.-high wooden compartment at the bottom. Two opposite sides are formed by the barrel itself and the other two sides are flat vertical walls, leaving a space between these walls and the barrel itself in which crushed ice is placed. Wet seaweed is then placed over the lobsters and the top of the compartment boarded over. Finally, large chunks of ice are placed between the compartment top and the barrel top, and the barrel covered

with wet burlap. The finished package weighs from 100 to 125 lbs.

A package of this type, although rugged enough to stand up for several days in transit, is generally re-iced enroute if the shipment is to be for any substantial distance. Losses with this package average about 5% in wintertime, but may run as high as 25 to 35% during hot weather.

After the war, the airlines, in cooperation with several packaging concerns, conducted surveys and tests to determine proper packing methods for the shipment of lobsters by air freight. The package which emerged from this experimentation consisted of five pieces, as follows: an inner carton, a false bottom to keep the lobsters above the level of melting ice and to absorb shocks, an ice tray which is suspended over the lobsters, an insulating pad made of wool shoddy and an outer sleeve which fits over the unit described above and holds the insulation. These surfaces which come in contact with the ice or lobsters are heavily waxed. These

* Of Arthur D. Little, Inc., industrial consultants, Cambridge, Mass.

◀ **SEALED 16 DAYS** in can, lobsters walk out, still full of fight. Secret of Live-Pak process is a life-sustaining chemical in water that produces "synthetic sea water" and provides for oxygen and waste disposal.

cartons are produced in two sizes, 25 lbs. net and 50 lbs. net, and are nonreturnable. They are packed with a small amount of seaweed and 10 or 12 lbs. of ice, depending on the length of the shipment.

These cartons have been used successfully to almost all points in the United States. Because of the speed of air shipment, lobsters pulled out of the ocean today will be eaten in

is said to keep lobsters lively and in good condition for indefinite periods, restore weak or partially dehydrated lobsters and produce sweeter-flavored meat in its residents than that of lobsters direct from the ocean.

Live-Pak Foods Co. has applied this new technique to a number of containers and shipping devices. Perhaps the most startling development so far is the canned live lobster. Two lob-

sters are placed in a 2-gal. can with fresh water and a bit of the wonder material. These cans are then hermetically sealed under pressure. During shipment a temperature of 40 deg. F. is maintained to slow the lobsters' metabolism and reduce oxygen requirements. Live-Pak guarantees that lobsters so packed will remain alive for six days. Some of them, however, are said to have come out waving their claws after 16 days.

To facilitate mass marketing of live lobsters inland and on the West Coast, Live-Pak Foods has developed a method of shipment, storage and re-

NEW PACKAGING TRICKS NOW INCLUDE A METHOD OF CANNING WHOLE LOBSTERS THAT KEEPS THEM ALIVE AND KICKING FOR 16 DAYS. By Robert C. Scheidt*

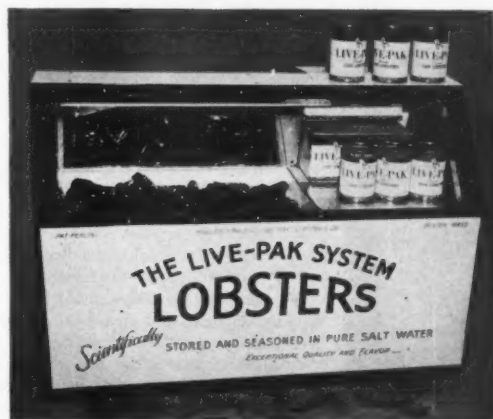


TWO LIVE LOBSTERS are placed by hand into 2-gal. cans. Special fluid is added; can is then hermetically sealed on a conventional can-sealing machine. Life is guaranteed for six days, but the can must be kept under refrigeration.

West Coast restaurants tomorrow evening. Air-freight shipping costs compare favorably with rail shipment, considering the reduced losses. Lobster mortality in transit is minimized by fast shipment and loss of weight due to loss of body moisture is negligible. These losses increase, of course, if the plane is grounded.

The airlines also feel that air-freight shipping has a further merchandising appeal. A guaranteed air-flown product, they feel, overcomes sales resistance springing from old wives' tales about the danger of spoiled lobster meat. The airlines maintain that advertising a product delivered by air can alleviate fears of the perishability of lobster meat.

Joseph R. MacDonald and Myer Selby of Live-Pak Foods Co., Boston, have developed a more radical technique for handling lobsters. The heart of this new method is an undisclosed material which when placed in water produces a "synthetic sea water" and also provides for oxygen and waste disposal. This water when in a tank



RETAIL CASE, refrigerated, extends selling life. Lobsters, removed from cans, are placed in tank containing fluid same as in can. Sales have been 10 times greater than was expected.



PHOTO COURTESY ROBERT GAIN CO., INC.

NEWER METHOD is this specially designed expendable fibre carton, heavily waxed inside, with ice tray and wool shoddy insulating pad.

tailoring based on the "synthetic sea water." Wholesalers in consuming cities throughout the country are being equipped with large wooden storage tanks which circulate the treated water and which will handle anywhere from 700 to 8,000 lbs. of live lobsters daily. In line with this, MacDonald and his associates have developed a glass-topped retail display tank similar in action to the larger wholesale tank, in which the retailer may store and display the lobsters.

One such retail display case was tested recently in a new supermarket in Massachusetts as a feature of its gala opening. While expectations were that 600 lbs. of lobsters might be

sold during the week, actual sales ran over 6,000 lbs. and would have continued had not supplies run out. Present plans call for the establishment of about 120 units in retail stores.

Utilizing the same methods, Live-Pak has developed a shipping case with which it will be possible to transport lobsters by rail all over the country with a minimum of shipping loss. This new transit box is made of aluminum and will carry 250 lbs. of lobsters. Provision is made to keep the lobsters moist by spraying treated water from fog nozzles over the lobsters for about one-half minute every 25 minutes or so. This water collects at the bottom of the tank with waste

products; it is then filtered, cooled by ice and re-used. During shipment, the temperature must be kept at about 40 deg. F.

Live-Pak claims that this method is suitable for all varieties of shellfish, including clams, oysters, crabs, shrimp, etc. Containers of this type used to carry lobsters to the West Coast might return with a shipment of king crabs or some other variety of shellfish which is unobtainable in the East.

Lobster meat has been canned successfully by a similar process. After the lobster is cooked lightly, the meat and a small amount of the treating material are placed in a can and hermetically sealed. The material obviates the need for a sterilizing cook, a process which destroys much of the flavor of the meat. With the cans kept at refrigerator temperatures, the bacteria count is kept under reasonable control and at lower temperatures the meat may be kept for over 90 days. Canned fresh lobster, as Live-Pak calls it, is put up at the source, usually Prince Edward Island, Canada, when lobsters are plentiful.

This process has been applied experimentally to a number of items other than shellfish. MacDonald has reported that such diverse materials as flowers, meat and vegetables, sealed in cans or plastic containers, can be preserved. If practical methods of using the technique can be worked out, it could do much to reduce shipping costs and losses and adjust supply more nearly to demand.

No privacy for cooked lobsters

Cooked lobster meat at the Maritime Packers, Ltd., Pictou, Nova Scotia, is being packaged in cans equipped



with transparent tops allowing unlimited visibility. The new "window" feature is calculated to increase sales appeal by emphasizing the rich, natural appearance of the lobster meat.

The new can is a lithographed metal container with a conventional bottom. In place of the usual metal top, the can company supplies a separate can cover ring into which a cellulose acetate disk is inserted to achieve the "window" effect. The can has a half-pound capacity and measures 3 7/16 in. in diameter and 2 in. in height.

In fabrication of the can, the bottom end is applied at the can factory and shipped to the packer separately

of the top metal ring. After the container is filled, the cut acetate disk is inserted and double seamed. Assembly is completed with attachment of the top ring.

After processing, the lobster meat is packed in the cans with the whole, red pieces of claw meat on top, presenting an attractive view through the "window." After being packed, the cans are ice packed in large wooden barrels for shipment and must be kept refrigerated until used.

CREDITS: Can, American Can Co., Montreal, Canada. Acetate disk, Canadian Industries, Ltd., Montreal.



CAPTIVE CAP of pink polyethylene is permanently attached to bottle by ring and "braided" strip molded integrally with cap. Stand-up counter card plays up new low 39-cent price, product name and slogan.

Bargain Squeeze

NEW DEODORANT EXTENDS SQUEEZE-BOTTLE UTILITY
TO A 39-CENT ITEM, OFFERS A LOSSPROOF CLOSURE



With squeeze-bottled deodorants sweeping to new volume levels and several major cosmetic firms invading the field, Dr. Jules Montenier, whose Stopette pioneered this type of package in 1947, is introducing a similarly polyethylene-packaged 39-cent deodorant and anti-perspirant for the hotly competitive syndicate-store trade. The new product, aptly named Squeeze, provides 1 oz. of deodorant—a six-month supply—and will be distributed by Squeeze, Inc., Chicago, an affiliate of Jules Montenier, Inc.

The 39-cent price tag on Squeeze is significant. Until recently practically all deodorants and other products in the squeeze bottle were priced around \$1 or more. Now there are several at the half-dollar mark and Squeeze has dropped the level even further. It is clear that the squeeze bottle is becoming established as a work-a-day package. It can no longer command a premium on the grounds of novelty or due to the cost uncertainties of a new package. With some 65,000,000 polyethylene bottles expected to be produced this year, costs are settling to constantly lower levels. Volume users of the bottle (and Mon-

tenier so far is estimated to have used more than 10,000,000) no longer regard it as a luxury package.

Squeeze is supplied in a Montenier-designed "flexi-plastic" (blown polyethylene) bottle somewhat similar in appearance to the Stopette bottle. The upper half of the container, engraved with a cross-hatched random design, also carries the words "Squeeze spray deodorant," molded in relief during the blowing process. Product name is accentuated on the white bottle with special ink in old-rose hue.

Functional feature of the new product is a friction-type captive cap of pink polyethylene with knurled edge for easy grip. The cap is molded with a Siamese or integral neck ring, to which it is connected by means of a short strip of polyethylene engraved to simulate a braided effect. The ring snaps firmly down over a small collar on the bottle neck, securing the cap against loss or misplacement—a particularly handy feature when traveling. When the cap is removed, the ring rotates freely, permitting the cap to be swung out of the way for convenient spray application of the product. The pink cap-and-ring combination contrib-

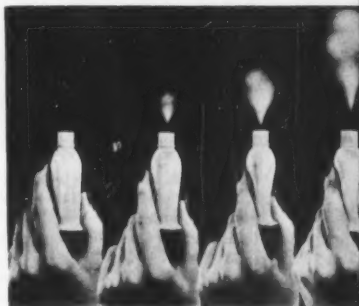
utes added sales identity and marks the first use of a "lossproof" closure for this type of product.

Each bottle of Squeeze has its own counter-display unit, printed in pink and blue with black lettering. The folded triangular bottom of the unit is die cut to grip the flaring bottle base and carries the *Good Housekeeping* guarantee seal. The entire back surface of the card is devoted to sell copy and use instructions, including a diagram explaining that air space is necessary at the top of the bottle to provide the desired spraying action. The units will be packed in dozen lots in two-color counter display cartons highlighting the spray feature and the 39-cent price.

Making its first appearance in metropolitan markets, Squeeze will be backed by a heavy advertising program in national magazines and on television, keyed by the statement, "A little Squeeze does it."

CREDITS: Blow-molded bottles, Plax Corp., Hartford, Conn. Polystyrene spray valve and polyethylene captive closure, Formold Plastics, Inc., Chicago. Individual bottle display cards, Carton Craftsmen, Inc., Chicago.

A STROBOSCOPIC CAMERA caught this actual photograph of atomized mist of deodorant produced by "a little squeeze."





Chase & Sanborn COFFEE

When you think of coffee merchandising, the odds are that the first brand name that pops into your mind is "Chase & Sanborn." That's as true today as it was 86 years ago, when Caleb Chase first went into the coffee business.

Chase & Sanborn was the first coffee packaged at the roasting plant in 1- and 2-lb. cans that could be promoted by brand name. Thus it can be regarded as the first modern, merchandise package in its field. But Chase & Sanborn has been selected as this month's nominee for Packaging's Hall of Fame not merely because it was first and famous, but primarily

because of the remarkable influence that the package—whatever form it has taken through the years—has had on the economics of distributing roasted ground coffee. This influence has been felt by the entire industry from the first package in 1878 right down through Standard Brands' "dated" package era to the present vacuum-tin pack.

Package requirements

Packaged coffee is judged by the consumer on two principal points: first, flavor—attained by the blending and roasting of coffees from several sources—and second, freshness, which

means the retention of superior flavors.

The aromatic oils in ground, roasted coffee are extremely volatile. They also deteriorate quickly through oxidation. To taste its best, roasted coffee must either (1) be distributed and used up so quickly after roasting that it doesn't have a chance to get stale, or (2) the freshness must be maintained by protective packaging.

The coffee merchant, therefore, has two choices in the method he uses to get fresh coffee to the consumer—a fast delivery service and an economical package with a lesser degree of protection, or the ultimate in package protection to withstand a longer period of distribution between production and consumption. Chase & San-

1950



CHANGE-OVER to vacuum packaging was completed in 1947. Can was redesigned in 1949 to incorporate a number of refinements—lowering of Chase & Sanborn name so that Chase is not over the unwinding strip, improved lettering to increase visibility and give quick identity. The word coffee was put on a white band at the bottom and grinds were identified by script.

1878



1900



SLIP COVER sealed with lead gave Chase & Sanborn the name, "Seal Brand." Wrap-around labels cautioned that "cover of can bears our trademark red seal, contents will not be genuine without it."

FAMILIAR to users of Chase & Sanborn Coffee for more than 30 years, this package was in use right up to the time of the "dated" package. It had a wrap-around paper label and the closure was a lug-type cap.

RECOGNIZED FOR PACKAGING'S HALL OF FAME

- a. The company's first vacuum-sealed coffee can was the first to protect the coffee from all outside influences in a single container.
- b. In use of the "Dated" package started a whole new trend in package coding to ensure product freshness.
- c. After 75 years, it remains one of the top-selling brands in the world.

born is unique in that it has been a leader in the use of both of these methods.

In 1878, when most other coffee roasters were still selling coffee beans in bulk to be ground at the grocery store or in the home in the old-fashioned coffee grinder, two New Englanders—Caleb Chase and James S. Sanborn—had the foresight to pack ground coffee at the plant in 1- and 2-lb. cans. These cans had very little protection as we know it today in comparison with the modern vacuum-sealed pack. They were simply equipped with a slip cover made tamperproof by a lead seal.

The coffee was called Chase & Sanborn Seal Brand; the lead seal had

to be broken to open the package. This progressive step created the "freshness" theme for the promotion of packaged ground coffee that has been the primary consideration of the entire coffee industry for 75 years. It was also the first selling tool, linking together the names of Chase and Sanborn as one of the most famous brands in coffee.

Just how Caleb Chase and James

GIANT COFFEE POTS spouting steam were once a dramatic Chase & Sanborn promotional device as they went through the streets atop the company's delivery wagons. Boy beside mammoth pot gives an idea of its size.



1930



1947



THE "DATED" PACKAGE—one of the most powerful promotional devices ever used on a package—pioneered a whole new trend in code dating of perishable packaged food products. Both metal cans and paper bags were used during this period. The date that was printed on the Chase & Sanborn Coffee package was the date of its delivery to the grocer—usually the day following roasting. No coffee remained on grocer's shelves more than two weeks.

VACUUM CAN lithographed in red, white and blue as it appeared just before the 1949 redesign, showing how the word, "Chase," was formerly printed on the unwinding strip. When the top of this can was removed on opening, the word, "Chase," no longer appeared on the can in the consumer's kitchen. This can also carried a reproduction of the traditional seal.



EVOLUTION OF SEAL for Chase & Sanborn Seal Brand, originally adapted from Chase family coat of arms. Heraldry was eventually eliminated, but seal remains today on the packages. The word, "Selecciones," signifying the careful selection of coffees in the blend, was used for a period in 1949 and 1950. Now the words "Seal Brand" have been re-instated.

S. Sanborn got together is not known. Chase was born at Harwich, Mass., on Cape Cod, in 1831, the son of Captain Job Chase, Jr. As a young man he worked in his father's general store at Harwich until he was 24. Then, like many New England young men out to seek wider fields, he went up to Boston, entering the employ of Anderson, Sargeant & Co., a leading dry-goods house. He traveled for this firm on Cape Cod and in other areas until 1859, when he joined the wholesale grocery house of Clafin, Saville & Co. He went into business for himself in 1864, forming the firm of Carr, Chase & Raymond, coffee roasters.

Sanborn was born in 1835 at Wales, Maine. At 17 he went to Lewiston, Maine, to work in a machine shop. For nine years following 1858, he traveled for the firm of A. H. Dunlap & Co., dealers in garden seeds. At the end of that time, he engaged in the coffee and spice trade and established an office of his own in Boston.

Apparently these two young men found they had a mutual interest in New England's rapidly growing importance as a production center and in 1876 they went into partnership under the firm name of Chase & Sanborn, coffee roasters. They established their plant in the neighborhood of the Boston docks where ships from all over the world were continually unloading cargoes of spices, tropical woods, silks, wool, coffee beans and other products. They soon gained a reputation for the excellence of their specially blended and roasted coffees.

At that time it was, of course, the custom to sell the roasted coffee in the whole bean, in bulk. But even at this early date it was realized that coffee

freshness and flavor were affected by atmospheric conditions. The first Chase & Sanborn Coffee was packed in 25- or 50-lb. burlap bags, lined with manila paper so that the coffee would not come in contact with the burlap.

Sanborn, however, was not satisfied with this method. He made arrangements with a predecessor of the American Can Co. to supply 50-lb. cans. A screw-type cover was sealed on the cans with a piece of wire. The can was enclosed in a wooden box made of 10 $\frac{1}{2}$ -in. slats. Arrangements were made with the railroads to return the empty boxes to Chase & Sanborn, where they were placed in a steam room and dried out. This was the beginning of Chase & Sanborn's tamperproof packaging. On receipt of the large cans, the grocer cut the wire himself and was warned not to accept any can if the wire had been previously cut.

This method of packing still did not give the complete control over brand name or the assurance of freshness which the founders required, due to the time consumed in transportation and distribution, plus the inaccuracies in merchandising of that day. Casting old-fashioned customs aside, they determined to go a step further than their contemporaries. In 1878, they began to pack ground coffee in the plant in the 1- and 2-lb. containers previously mentioned under Chase & Sanborn Seal Brand.

For the "seal" they adopted the Chase family coat of arms, carrying the Latin motto, "Ne cede Malis," ("Yield not to evil") and the date, "established in 1864," when Mr. Chase first went into the coffee business for himself, although he did not go into partnership with Mr. Sanborn until

1878. The name, label and inscription were registered in 1888. A seal of some sort has been carried on successive packages of Chase & Sanborn right up to the present time, although the Chase coat of arms was eventually omitted.

Variety of packages

Probably no firm has used a greater variety of package forms than Chase & Sanborn, or as many different types of packages at the same time to meet the varying economic requirements of distributing a perishable product under constantly changing marketing conditions and geographic preferences.

Records show that at one time or another the company has used cans of the round type, with slip covers or screw tops; square cans; bags of various constructions; canisters, both round and square, with metal ends and fibre walls; paper cartons; pails suitable for re-use as containers for milk; pails suitable for re-use as water carriers; tight-wrapped cartons. Among the sizes used over the course of years were $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., 1 lb., 2 lbs. and 5 lbs.

Early the founders discovered that packaged coffee in small units, ready for home brewing, was the desired form and continued improvements in packaging were based upon that knowledge. In 1894 Chase & Sanborn imported from England automatic weighing machines for weighing coffee into small packages. These machines are believed to have been the first of their type known to the coffee trade in the United States.

When bag packaging of coffee gained popularity during the '90s and early 1900s, Chase & Sanborn adopted parchment-lined paper bags, imported

from Germany, for brands of coffee they put out which were second only in quality to Seal Brand. Among these were Sanrika, Crusade, Esplanade, Golden Glow, Good Fellow, Buffalo Brands, Bonita and Dining Car Special. Later the bags were made by the Thomas M. Royal Co. on automatic bag-making machinery based on German machine patents.

Until the business consolidations of the '20s in the food industry, coffee merchandising, because of the perishable nature of the product and local preferences in blends and roasts, had been mostly a local affair. Chase & Sanborn made no effort to secure business outside New England until 1880, when they established their Western department in Chicago. Two years later they opened a Canadian department in Montreal. Although firmly entrenched in these three areas for years, Chase & Sanborn was a comparatively unimportant brand in other markets when the company became a part of the Standard Brands family in 1929.

The "dated" package

Then things began to happen—not only because of a packaging idea, but because of the union of Chase & Sanborn with a system of distribution which in its heyday was regarded as second in coverage only to the United States mail.

In 1929 the Chase & Sanborn business was sold to Standard Brands, Inc., which was formed in that year and had already acquired the assets of the Fleischmann Co.

The Fleischmann Co. represented the principal market for foil-wrapped yeast sold through grocery stores and the largest volume of bakers' yeast. It offered a route delivery system blanketing every important trading area in the country to deliver yeast, then one of the most perishable food products, quickly and frequently.

Here was a ready-made distribution system for freshly ground coffee. It provided the means for one of the most powerful promotional devices ever used—the "dated" package.

The date that was printed on the Chase & Sanborn package was the date of delivery to the grocer—usually the day following roasting. The rule was that no coffee remained on grocer's shelves more than two weeks. It provided an advertising theme with which no other firm, lacking this

unique quick-distribution system, could compete. It secured national distribution for Chase & Sanborn almost overnight. It pushed Chase & Sanborn up to a leading position and it has ever since been among the preferred national brands of coffee.

Futhermore, this practice started a whole new trend in the code-dating of perishable packaged foods—bread and other baked goods, milk, cream, eggs, cottage cheese, fresh pre-packaged produce.

Freshness became the all-important word in the coffee trade. It actually helped to foster the development of the vacuum pack, which Standard Brands was not then generally using, because competitors who did not have such extensive quick-distribution service were forced to improve package protection to maintain competitive freshness of their coffee over a longer shelf life.

According to *Fortune* magazine for January, 1938, Chase & Sanborn coffee volume was less than

15,000,000 lbs. in 1929—much of it private-brand packaging. By 1938 it was well over 100,000,000 lbs., representing about \$22,000,000 in net sales, the article stated. This increase was directly attributable to the "dated" package and the national advertising that put it over.

Trend to tin

But all good things have their day in the rugged scheme of American business and the "dated" coffee that dominated coffee merchandising for nearly a decade, intensifying public demand for freshness not only in coffee but in many other food products, has become as obsolete in the economic pattern of today's distribution as the Ford and Chevrolet trucks of the '30s which delivered it.

Although vacuum packaging had been used for Chase & Sanborn experimentally and in a few localities as early as 1914, Standard Brands did not adopt vacuum packing generally until just before World War



AUTOMATIC WEIGHING MACHINES, imported by Chase & Sanborn from England in 1894, were believed to have been the first used in the coffee trade in the United States. Equipment of the type illustrated in the photograph above was in use at the Chase & Sanborn plant about 1903.



LARGE USER OF RADIO, Standard Brands was responsible for the rise to fame of Charlie McCarthy and Edgar Bergen, who plugged Chase & Sanborn Coffee for more than a decade. Above is Charlie viewing a tandem bike being ridden by marionettes of Mr. Chase and Mr. Sanborn as used in the company's exhibit at the New York World's Fair in 1939.

II. The conversion was delayed, of course, because of the metal shortage. For a time the company turned to glass jars. They also used a bag during the war to round out container supply. When cans were again available, they began converting to the vacuum-packed metal container. The change-over was completed in the spring of 1947.

The decision for eventual conversion to the vacuum pack was brought about by a series of changes in consumer buying habits, changing trends in distribution and certain economic forces peculiar only to Standard Brands. To maintain a special delivery system for perishable "dated" coffee would have been uneconomical. Without the quick distribution system, only vacuum packaging was feasible to keep the coffee fresh from the time it left the plant until it reached the consumer.

The economics of vacuum packaging are apparent in the company's operations. The number of coffee-roasting plants has been reduced from 10 to five.

During the war, Standard Brands conducted an intensive research program on vacuum packaging with the aim of getting a process that would assure ultra-high vacuum. This study was based on Chase & Sanborn's early experiments with Weir and Craig equipment in 1914 and local operations with vacuum equipment for some 25 years. The result is that today's Chase & Sanborn coffee is ultra-high vacuum packed in all five plants, a great improvement, according to the company, over the vacuum pack previously used and, incidentally, over most of the methods used throughout the coffee industry prior to the war, methods having been developed for raising the vacuum pulled from 28 in. to as high as 29 $\frac{1}{2}$ in.—almost approaching the absolute maximum of 30.

The cans are inverted and fed to conveyors which take them to two seven-head scales in tandem. Each scale accommodates 70 lbs. of coffee per minute. This is slightly more than capacity, so that the sealing line is not held up.

The filled cans are fed to either one of two types of vacuum-sealing lines: one with vacuum-closing machines in tandem each closing 60 cans per minute; the other a single vacuum-closing machine that handles 120 cans per minute.

From the closing machines, the cans are conveyed to a case packer where they are packed 24 cans to the case. The cases are conveyed through a sealing and compressing unit from which they are delivered to a gravity chute connected with the storage and shipping areas. The lines are adjustable for 1- and 2-lb. cans of Chase & Sanborn regular, drip or glass coffee-maker grind.

Pressure packaging

Standard Brands is also "pressure packaging" coffee experimentally today for test areas throughout the country in packages calling attention to this feature. Pressure packaging is a combination of vacuumizing and the injection of inert gas. It is believed to have considerable promise for increasing the shelf life of fresh coffee. It has been in use experimentally for some 15 years and already has been adopted by some of the smaller coffee packers, but as yet, so far as is known, none of the leading brands has converted to it fully.

In July, 1946, Standard Brands added to its line Chase & Sanborn Instant Coffee. All the packaging of this pulverized coffee is done in an air-conditioned room. The 4-oz. jars of Instant Chase & Sanborn are handled on the packing line at the rate of 200 per minute. The same line also handles the 8-oz. jars. The line is fed to a 16-head vacuum-filling machine from where it moves on to a screw-capping machine and an automatic labeler. Case loading is also automatic.

Advertising support

From the very beginning Chase & Sanborn packages have received aggressive advertising support, based on the freshness theme.

The Columbian Exposition at Chicago in 1892-93 provided an important stepping stone. To this world's fair came visitors from all parts of the globe and the coffee they drank was Chase & Sanborn, for the company was smart enough to obtain an exclusive for the exposition grounds. It left nothing undone to advertise the

fact to visitors and prospective visitors to the great exposition. Special booklets, handbills and other merchandising pieces were printed for this purpose. "Seal Brand" apparently pleased thousands of visitors and the Chase & Sanborn name became widely recognized for fine coffee.

Early records show consistent expenditures of about \$20,000 a year on advertising, mostly in the form of small merchandising pieces, as was the custom in that day. The company's colorful educational booklets were once immensely popular. They included such pieces as "History of the American Flag," "North American Birds," "Animal Booklet," "The Story of the Pilgrim Fathers" and "Flags of the States." Other forms of advertising were blotters, small cards, store display pieces and advertising cuts. At one time the company had 50 large replicas of coffee pots on its delivery wagons from which jets of steam spouted.

Since it acquired the brand, Standard Brands has used large advertising appropriations for Chase & Sanborn in newspapers, magazines and radio, and its merchandising programs have been obviously effective.

One of the earliest and largest users of radio time, Standard Brands sponsored Eddie Cantor for Chase & Sanborn in 1931. The coffee was advertised in 1935 via the famous

Amateur Hour conducted by the late Major Bowes, a sensation in its day. Edgar Bergen and Charlie McCarthy took over on May 9, 1937, plugging Chase & Sanborn for more than a decade. Today the company is actually using more radio time, it says, than ever before, but it is mainly for spot announcements over many stations. This, in addition to widespread use of newspapers, puts the company in the forefront among coffee advertisers.

During the New York World's Fair, the Standard Brands Building was one of the most popular of all the commercial exhibits, featuring a tall tower built in the shape of the "dated" silver package. Among the features of the exhibit was a marionette show featuring miniature replicas of Caleb Chase and James S. Sanborn, Charlie McCarthy and Edgar Bergen, Miss Tender Leaf Tea and many others relating to the products of the company.

Package design

Surface design of the Chase & Sanborn packages has been changed many times to meet the merchandising requirements of each period of its history, starting with elaborate color lithography on the wrap-around paper labels. A review of these packages shows gradual simplification for better visibility and legibility.

The Chase & Sanborn package on our cover was introduced early in 1949. The colors, lithographed on the metal cans, are a pleasing red, white and blue. The design retains a facsimile of the original seal which gave the coffee its former name of "Seal Brand." One of the refinements over the vacuum can introduced in 1947 is the lowering of the Chase & Sanborn name so that when the top of the can is removed, the full name remains visible; on the old can, the word "Chase" was printed on the unwinding strip. The name is also in modern, bold, larger type in caps and lower case to increase visibility for easier and quicker identification. The words "New" and "Selecciones" appeared on the can, tying in temporarily with an advertising device using the word, "Selecciones," to signify "the careful selection of the coffees in the blend." The grind-regular, drip or glass-maker—was identified in distinctive modern script carried at an angle.

As this article goes to press the current package has been modified still



WARTIME PACKAGE. When practically all other packaging materials were unobtainable, Chase & Sanborn used paper bags as shown in photo above.



LATEST PACKAGE being currently introduced as this issue went to press. Brand name is larger and lower on can. Words, "Seal Brand," have been reinstated, but seal has new position above brand name. White band is eliminated around base, with "Coffee" in caps against blue background. Grind is given more emphasis on top band.

INSTANT COFFEE was introduced in July, 1946, the only other product marketed under the Chase & Sanborn name. It is sold in two sizes—4 and 8 oz.



further (see photograph above). The brand name has been made larger and placed still lower on the can. The words, "Seal Brand," have been reinstated on the seal, replacing the word, "Selecciones." The position of the seal has been changed to a centered place over the name Chase & Sanborn. The white band around the base of the can has been removed and the word, "coffee," is printed in white (This article continued on page 206)



DESIGN

From sea to table in a glass container



Cocktail-glass containers which may be placed right on the dining-room table for serving individual portions of Sea Snack Brand cooked shrimp in cocktail sauce is the newest package to be brought out by the SeaSnack Co. of Philadelphia, Pa.

These containers are designed to appeal to the housewife not only from the standpoint of ease in serving, but also because of their re-use value later as serving glasses for fruit salad, tomato juice, cocktails, etc.

Gracefully designed with a platform base to resemble table glassware, the jar is fitted with a paper disk closure, similar to the caps used on glass milk bottles. Product, brand and company name, ingredients, etc., are printed on the closure in white blocks against a striped background. The closures are held in place by shrink-type cellulose sealing bands.

CREDITS: Glass, Hazel-Atlas Glass Co., Wheeling, W. Va. Closures, Smith-Lee Co., Oneida, N. Y. Cellulose bands, (Sylvania Bands) Sylvania Div., American Viscose Corp., New York, and (Cel-O-Seal) E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Flour makes its debut in cellophane



Eagle Roller Mill Co.'s recent adoption of multicolor-printed, pour-spout cellophane bags is said to be the first use of this type of packaging for a full line of pancake mixes, cake flour and farina. The natural texture of the flour and other milling products makes an attractive background for the brown, red and white Eagle brand printing. The rectangular shape of the bag, with its flat top and bottom, makes it easy to build uniform shelf displays or stacked mass displays.

Automatically filled and closed, the bag has a triangular tab closure that is easy to open. When the tab is pulled up and the end cut off along the dotted line, it forms a handy pouring spout for dispensing the contents neatly into mixing bowl or measuring cup without spilling. Folding the spout back into position protects the bag's remaining contents.

CREDITS: Bag (Deltaseal), Bemis Bro. Bag Co., St. Louis, Mo., using Sylvania cellophane.

HISTORIES

French-dressing mix with your pre-packaged greens

Increased sales of "Nature Boy" cut salad greens have been reported by Milford Farms, Inc., Milford, Pa., since the company introduced its new convenience package—a separate envelope containing dehydrated makings for French dressing attached to the bag of salad greens. Water and oil are all that the consumer must add to prepare a salad bowl. The salad greens are packaged in a large, three-color printed cellophane bag. The French-dressing mix is packaged in a small 2 by 3 $\frac{3}{4}$ in. cellophane envelope. Instructions are printed on the bag. The small envelope is stapled to the larger bag through the paperboard header piece.

The mix is also being sold by Milford in small packets to other produce packers and to consumers in a metal-end fibre can.

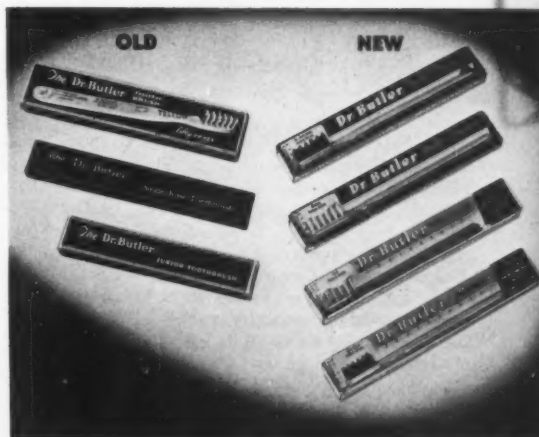
CREDITS: Envelope made by Speedmaster Packaging Co., New York, using Du Pont 300 MST 56 cellophane. Bag, Roto-Lith, Ltd., New York. Metal-end fibre can, The Canister Co., Inc., Phillipsburg, N. J. Header piece, Matamoras Print Shop, Matamoras, Pa.



Transparent package solves a size and color problem

Better retail display and simplified package production were attained by John O. Butler Co., Chicago tooth-brush manufacturer, in switching from a tuck-end folding carton to a specially designed tray-type package with cellophane overwrap. The former blind carton required several printed variations to fit all brush types and each carton had to be stamped to identify handle color. The "junior-sized" cartons were difficult to display in compartmented tooth-brush racks. The new package, with its die-cut bristle slot, holds the brushes firmly in place and permits full view of the product. The sloping inner surface affords ample space for company name and supplementary copy. A single package size is now used for all brushes. A platform-type tuck-in insert fills the extra space at the end of the shorter handles and affords space for promotional copy.

CREDITS: Carton, Acme Paper Box Co., Chicago, using Du Pont 300 MST 52 cellophane.





NEW WINE BOTTLE reflects combination of sales impact and quality. As much as 65% sales increase has been reported.

Mission accomplished

HOW OBJECTIVE OF EXPANDED SALES WAS WON BY MISSION BELL WINES

THROUGH MEANINGFUL LABELS AND CLOSE ATTENTION TO PACKAGE DETAILS

Not content with its rank as one of the leading U. S. producers of California wines, the Mission Bell Wineries of Madera, Calif., has turned to packaging redesign to extend its markets. To achieve this, Mission Bell wine has shed its old bottle and label for a modern, self-selling model.

As a result, the wine firm is showing substantial gains in all its former markets and as much as 65% more sales in some important areas. Further, its new package designs have proved to be the key which has opened many new retail outlets for the company's wares.

This large wine firm recently changed hands and with new ownership came a review of the sales appeal of Mission Bell's packages. Fully aware of the recognition value of its long-established labels, the new management was nonetheless eager to determine if these same vital "memory" factors could be incorporated into a more powerful, sales-boosting package family. On this basis, Mission Bell retained a San Francisco package-design firm to make the change-over.

First goal of the designers was the determination of the major label elements which meant "Mission Bell" to

the company's regular customers. Next, the means by which these factors—the California monastery look and the old mission bell—could be presented most effectively were surveyed.

The answer, shown by the accompanying illustrations, conveys the "mission" theme instantly and powerfully, in contrast with the cluttered label it replaces.

The new label evolved from the designer's extensive study of the problem of how to bring simple, instant force to this design. The result was to reduce the entire theme of mission archi-

texture to its basic essentials or symbols. Translated to the package, the bottle and its wine became the mission wall and the new die-cut form of the label became the arch through which the famous Mission Bell symbol appears.

This illusion of looking "through" to the symbol is made even more effective by the monastic simplicity given the restyled bell and its redwood beam. By extending the ends of the beam to the very edges of the label, the design gains a true window appearance. In addition, skillful placement has brought unity of all the elements on the label. The shopper's eye is first drawn to the bell, guided to the brand name and then channeled to the name of the wine the bottle contains, shown on the reverse panel which forms the "sill" of the window-like label.

The window-like effect is one of the best features of this label because it attracts the customer's eye: who can resist looking through a window? Then, in quick order, it gives him the brand symbol, brand name and the wine type, making the most of that split second of shopper attention in which sales for the product are made or lost.

Even though designed to be bold and hard hitting, the new Mission Bell label possesses the connotations of quality which a wine package must have for lasting success. This was proved in Chicago market tests, where Mission Bell introduced the new label initially on its more expensive wine while its lower-priced wines were still appearing under the old label. The

new packages outsold the old, despite their higher price.

One of the reasons why this occurred may be found in the attention given by the designer to every detail which contributes to the whole impression of the package. A new bottle shape was chosen for the fifth gallon which complements the arch design of the label and creates the illusion of a private-mold bottle holding a greater volume.

For the cellulose bands, a continuous pattern of arches against the suggestion of a mission's adobe brick wall was designed. Unlike the old Mission Bell neckbands, the new ones instantly identify the brand from any angle. This was calculated as an economy factor also, since it eliminated costly spot placement of the old two-faced bands on the packaging line.

A most unusual feature of Mission Bell's new program is its private-mold half-gallon container. This was deliberately planned to lift this container size from the economy-purchase level into the gift classification without any increase in price to the consumer. Seldom, if ever, in the wine field has a half-gallon size been produced in private-mold shape.

Here are the special qualities achieved by the new half gallon:

Smart styling. It is decorative enough to warrant a place on the dinner table.

Re-use appeal. Its space-saving oval shape makes it an excellent refrigerator container or decanter.

Easy handling. Its long neck creates a balance so that even a woman can hold it easily and pour with one



SYMBOLIC window-like effect of new simplified label (right) carries strong traditional "mission" theme. Brand and wine type is stressed more effectively.



CARRY-HOME CARTON with die-cut front for half-gallon size bottle is new. The bottle and special carton put this size in gift classification, assure it a position on display shelves.



MAXIMUM SHELF DISPLAY and efficient storage are achieved by new half-gallon decanter, shown here in bottom, side and front views. Round base is retained to keep it within low price range.

hand, unlike the usual stock half-gallon bottle.

For the first time in wine history, according to Mission Bell, this half gallon has challenged the sales records of fifths and, in some instances, even surpassed them.

To these, Mission Bell can add several other attributes. The new design has literally pulled the firm's half-gallon units off the retailer's floor and up onto eye-level shelves for a better sales position.

Despite the fact that the new design is a private-mold bottle supplied solely to Mission Bell, it has proved economical both in initial cost and in handling at the winery. Although its waist is oval, it was designed with a

round base to keep it within the more favorable glass-production price brackets. It takes the same label as the fifth and has flat labeling surfaces both front and back so that high-speed labeling machines can handle the newly designed half-gallon bottles on an as-they-come basis.

Mission Bell's new half-gallon bottle was designed with store packaging in mind. Its shape is suitable for bagging—something half gallons cannot usually boast—so that buyers can conveniently carry it home. In addition, to spur gift purchases, it is available in a folding carton smartly styled to project the wine's mission theme. This is believed to be the first time that a half-gallon wine container has been

successfully packaged in a carry-home carton.

According to the Mission Bell salesmen, the styling of the half-gallon unit has supplied the "clinching" force in the addition of new markets to the brand's already wide distribution network.

CREDITS: Design program, Walter Landor & Associates, San Francisco. Labels, Carton Label & Lithograph Co., San Francisco. Fifth bottles, Hazel-Atlas Glass Co., Wheeling, W. Va. Half-gallon bottles, Ball Bros. Co., Muncie, Ind. Neckbands, "Cel-O-Seal," E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., supplied through I. F. Schnier Co., San Francisco. Half-gallon cartons, Andre Paper Box Co., San Francisco.

Glued expendable pallet loads save money—reduce damage

A new method of gluing multiwall bags of starch on expendable pallets is reported to be saving as much as \$27 to \$33 per carload loading costs and reducing damage to practically nil.

In a test shipment of 14 carloads, only one broken bag was discovered. Similar satisfactory shipments of soda ash, salt, alum and bicarbonate of soda have been made in the same

manner, with corresponding savings in handling costs due to the speed of loading and unloading, reduction of storage areas needed and time required for moving bagged chemicals from storage to point of use.

Stacked in 4-ft. cubes, the bags of starch are first glued together, then glued on 12-post 40 by 48 in. expendable fibreboard pallets, 21 per pallet, each bag weighing 100 lbs.

Cars shipped in this manner can be unloaded by one man and a fork truck in less than an hour, it is said, at a cost of only \$2.08. Similar bags tied on pallets but unloaded by hand and carried to storage on fork trucks take the labor of six men for 4 hrs. per car at an estimated unloading cost of \$29 to \$35 per car.

A specially developed "releasable" glue is used, permitting the bags to be separated without tearing by the receiver, but holding them securely together so that they do not shift in transit. The gluing device, installed at the delivery end of a roller conveyor, consists of an adjustable pair of friction-driven rollers revolving in glue reservoirs. The adhesive is applied in two narrow strips to one side of each bag before it is placed on the pallet or on the tier of bags.

At destination, the palletized loads are removed from the box car by fork truck and carried to storage. When the bags are needed they may be easily broken apart, as the adhesive is designed for high shear strength, but has relatively low tensile strength.

The special adhesive has been made available in two forms: One is recommended for paper and fabric bags. Another type is used if the load is comprised of corrugated or solid fibre containers.

CREDITS: Glue (Load-Lok), National Starch Products, Inc., New York. Expendable pallets, Robert Gair Co., Inc., New York.

ONE MAN and a fork truck can unload a car of the glued expendable-pallet loads in less than an hour, whereas it takes six men 4 hrs. to unload a car of similar bags tied on pallets but unloaded by hand.



Can that needs no opener

TEST MARKETING OF BETTY CROCKER SOUP MIXES MARKS INTRODUCTION

OF A NEW SEMI-RIGID CONTAINER FORMED FROM FOIL-PAPER LAMINATION

The food trade is observing with interest a test marketing by General Mills which marks the introduction of a long-discussed new type of container. In New York, Minneapolis, Cincinnati, Albany and a few other cities, Betty Crocker Soup Mixes—dehydrated soups in granular form—are appearing in a rectangular, foil-covered container which involves no inner box or carton, but is simply formed from a lamination of foil and paper, including a middle, stiffening ply of heavy waxed paper.

The resulting container has not only the shape, but also the semi-rigidity of a box. Wax and special adhesives give exceptional strength to the end seals and for added protection there is an extra flap of the material overlying and sealing the entire area of the end folds.

The objective obviously is to provide, with a flexible material, protection comparable to that of a rigid metal can. The container is designated by General Mills as a "Flex-Can." Aluminum foil forms the inner and outer surfaces of the container. The exterior is colorfully printed in blue, yellow, white and red, with gold as the over-all background.

No statement is being made by the company while the package is still in the test stage, but according to reports in the trade a special machine developed by the mechanical division of General Mills after long experimentation is involved. Reportedly, the preprinted aluminum foil-paper material and the waxed-paper center ply are fed into the machine from rolls and the container is formed, filled and sealed automatically. Apparently, both heat and adhesives are used in making the seals.

Copy on the package makes it clear that General Mills considers this something exceptional in the way of a protective container.

"Fresher, richer flavor . . . tastier, more delicious soup," it is claimed,

is obtained "from this exclusive new 'Flex-Can' container. Seals flavor in. Vapor-tight aluminum inside and out! Double aluminum for double protection—keeps moisture out, freshness in."

Heavy promotion has backed the introduction in test areas, with full-page ads in local newspapers stressing the protection of the package and its easy opening. In some cases, a three-cent sale reportedly has been used as a means of initial promotion, with customers being offered one foil 'can' at the regular price and a second one for an additional three cents.

Part of the promotion to dealers is the mailing of a gold tag with a can opener attached, the copy on the tag emphasizing that the Betty Crocker soup can needs no can opener. In Albany, the *Times-Union* distributed a gold foot sole to be glued to grocery floors to point the way to the Betty Crocker display.

The bottom panel of the package provides the usual General Mills coupon, offering a silverplated teaspoon in the Queen Bess pattern for 34 coupons and five cents, or two coupons and 20 cents. The silvery foil surface pictures the teaspoon with striking realism.

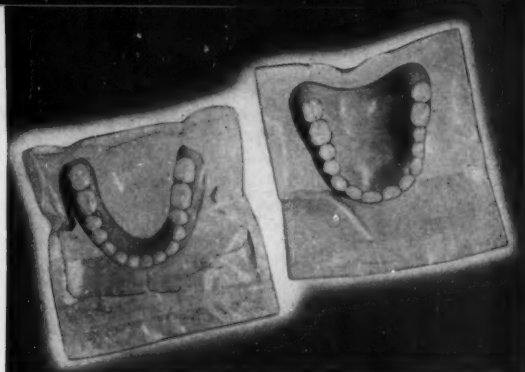
The top panel design provides a good-sized white spot for price marking. The back includes two complete recipes and several other suggestions for variations in flavoring.

On the front panel the name "Betty Crocker Soup" appears in white against a dark blue oblong patch and the patch is bisected by a yellow band in which the flavor designation is printed in red. In addition to split pea soup, the line includes chicken-flavored noodle soup, bacon-flavored navy bean soup and vegetable noodle.

CREDIT: Foil package material, Reynolds Metals Co., Richmond, Va.

FLEX-CAN as used by General Mills for spot-test marketings of Betty Crocker Soup Mix. Although it has appearance and rigidity of a paperboard carton, there is no box structure involved; the only material is a semi-rigid lamination of aluminum foil, paper and wax, specially sealed. Unusual moisture and flavor protection is claimed for package.





1

2

MODERN

1 Canada Dry's summer campaign to broaden the market for its "Quinac" Quinine Water—a mixer for "gin and tonic"—is spearheaded by this new four-color-printed carton, backed up by full-color ads in national magazines and point-of-sale displays. Designed to encourage larger unit sales, the closed carton holds four 12-oz. bottles. Carton, J. B. Slevin Mfg. Co., East Lansdowne, Pa.

2 A revolutionary new method of packaging dentures said to eliminate previous warping and discoloration has been adopted by The Central Dental Mfg. Co., Inc. The dentures are sealed in flexible, liquid-holding pouches made of laminated Pliofilm, permitting them to be protected in $\frac{1}{2}$ oz. of antiseptic solution right up to the time the patient is fitted. Pouch (Liquid Film), Shellmar Products Corp., Mt. Vernon, Ohio.

3 The Gold Seal Co., maker of Glass Wax, has introduced a new powdered all-purpose bleach, "Snowy Bleach," in this eye-catching 20-oz. carton printed in purple, blue and yellow on white board. Extensive newspaper and television promotion is planned for the item. Carton, Waldorf Paper Products Co., St. Paul, Minn.

4 Mother Goose illustrations have been added to the can with a rattle used for Mennen baby powder and the rattle is now placed in the bottom of the container where it makes more noise for baby. The rattle and lithographed illustrations are intended to stress the toy and educational value of the package. Can, Continental Can Co., New York.



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PACKAGING PAGEANT

5 To meet the increasing demand for carry-out sales of ice-cream sundaes, Nu-Pak Products, Inc., is packaging its Cloverleaf Sundae Topping in a handy, transparent, flexible pouch made of laminated Pliofilm. Filled pouches, shipped to ice-cream companies, are placed in a patented 1-pt. container of ice cream. The complete unit is convenient and time saving for retailers. Package (Liquid Film), Shellmar Products Corp., Mt. Vernon, Ohio.

6 A miniature replica of St. Peter's Cathedral in Rome has been molded as an ivory-colored polystyrene box to package the Anno Sancto Holy Year wrist watch produced by the Cronow Watch Co. in commemoration of this traditional quarter-century Roman Catholic occasion. Sold through church and department stores, the box has re-use value particularly as a depository for religious jewelry. Box molded by Tech-Art Plastics Co., Inc., Long Island City, N. Y., of Koppers polystyrene.

7 A marked innovation in Heinz packaging is a cartoon treatment added to pep up the famous keystone trademark on this label for the new 25-oz., family-sized glass jar of processed dill pickles. Although these labels represent a marked departure from other Heinz labels, they retain their company identity.

8 Gillette Safety Razor Co.'s gift set is planned to give maximum display at point of sale. The hinged box is covered with pigskin-coated and embossed paper. A tray attached to the lid holds the travel kit for the razor. Brown flocking on a gold platform sets off the blades and shaving cream. Box, Cambridge Paper Box Co., Cambridge, Mass., using laminated boxboard blanks supplied by Robert Cair Co., Inc., New York. Cover paper, Hampden Glazed Paper & Card Co., Inc., Holyoke, Mass. Flocked material and gold paper, Nashua Gummed & Coated Paper Co., Nashua, N. H.

9 An aerosol container used by Pressure Products Corp. for its "Prepo" burning compounds forms a compact torch that may be used for soldering, burning paint and heating small metal parts. With the separate nozzle attached to the can, the torch is ready for use. Can, Crown Can Co., Philadelphia.

10 The remarkably realistic effect that may be achieved by reproducing color photography on metal is illustrated by these two lithographed metal containers for tea bags sold by the Dayton Spice Mills Co., said to have increased the company's sales of tea bags tremendously. They were entered in the 1950 competition of the Society of American Florists as an outstanding use of flowers in advertising. Containers, Heekin Can Co., Cincinnati, Ohio.

11 Calling its latest stocking color "Old Gold," Sapphire Hosiery Corp. revives a packaging idea used in 1942, when their Cork Tip shade was put up to look like giant cigarettes, and ties in the entire promotion with P. Lorillard & Co., makers of Old Gold cigarettes. Advertising, window display contests, counter cards (see illustration) carry out the tie-in theme—"For a treat instead of a treatment, light up your wardrobe with Sapphire's Old Gold stockings." Box wraps, Consolidated Lithographing Corp., Brooklyn.



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MODERN PACKAGING

12 A new injection-molded polyethylene container has been adopted by Helena Rubinstein for "Sun and Windproof Lotion." Distinction is achieved for these stock-design spray bottles by their suntan coloring, brown lettering and brown polyethylene cap. Bottle, Injection Molding Co., Kansas City, Mo. Lettering, Modern Decorating Co., West New York, N. J.

13 Solid fibre shipping containers offer convenience to the user of Swift & Co.'s flexible and non-vap glue. The box is coated inside with paraffin. It holds approximately 80 lbs.—an average of 16 five-pound cakes separated by heavy waxed paper. The fibre boxes can be kept near the gluing machine and the 5-lb. cakes readily removed from the box by women operators. Box, Container Corp. of America, Chicago.

14 With the introduction of this new bottle for Gordon's Distilled London Dry Gin, Distillers Co., Ltd., completes the family resemblance for all its containers. The new shorter and wider bottle handles easier on the filling line, the company reports, because its broader base reduces tipping. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Closure, Crown Cork Specialty Corp., Decatur, Ill. Seals, DuPont and Sylvania. Labels, Rode & Brand Div., Stecher-Traung Lithograph Corp., New York.

15 New luxury packaging in the textile field is this gift-boxed bridal lingerie manufactured by the Godfried Underwear Co., Inc. Wedding bells are printed on the rigid transparent cellulose acetate cover that fits over a paperboard box base. The lingerie is visible, yet protected

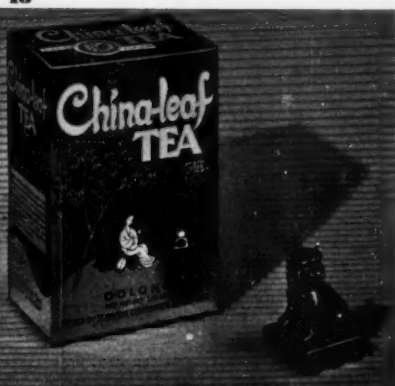
against handling. Box made by Model Paper Box Co., Brooklyn, using Monsanto Vuepak plastic.

16 Six individually cartoned, one-serving cubes of ice cream in a master take-home package is the convenient new way Miami Pineapple Plantations merchandises its Velda Diced Cream. The individual units are placed in a die-cut and scored sheet of corrugated board, said to afford insulation that prevents the ice cream from melting while being carried home. A four-color overwrap seals the package. Corrugated, Florida Fibre Box Co., Sarasota, Fla. Overwrap, Marathon Corp., Menasha, Wis.

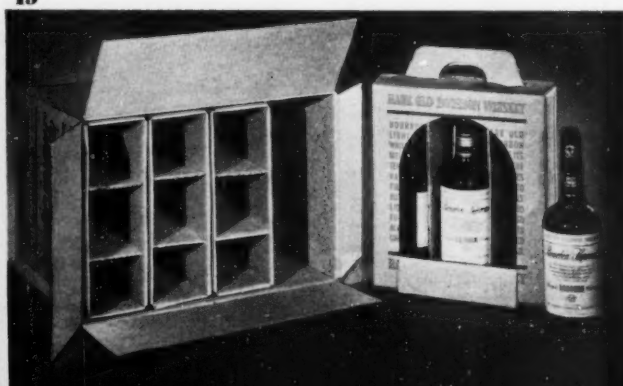
17 A new tray package for Mrs. Kavanagh's English Muffins offers a new end-opening and reclosing feature that pleases the consumer. Contents are accessible by merely pulling the end flap down. When replaced, the flap protects the remaining, unused muffins. Designed to give maximum product display, the wrap is made of waxed paper and cellophane glued together. Only one fourth the amount of cellophane needed for a complete overwrap is used. Overwrap (Revelation) and tray (Serv-O-Tray), Milprint, Inc., Milwaukee, Wis.

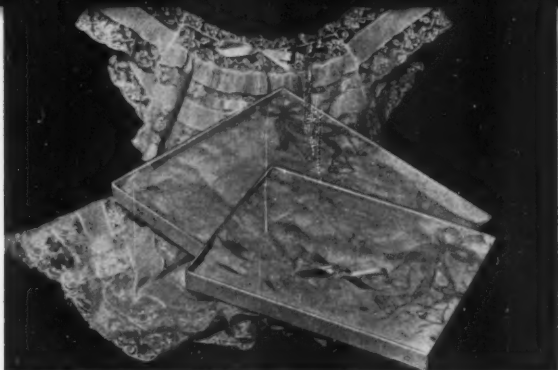
18 The design of the folding carton for Sombodja Corp.'s new brand of China-Leaf imported tea is printed to give the appearance of fine Chinese cloisonne. Made of aluminum foil laminated to board, this cellophane-wrapped carton helps retain tea freshness and flavor and prevents sifting. Carton, (Cair-Reynolds Foilene) Robert Gair Co., Inc., New York. Cellophane, Sylvania. Contract packager, The Edlow Co., Glendale, Long Island, N. Y.

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PAGEANT

19 Combination carry-home and display cartons holding three fifths bottles of Bourbon Supreme Whiskey, product of American Distilling Co., promote quantity sales and provide effective point-of-sale promotion. The three-bottle unit is a die-cut, corrugated carton with a scored front panel that may be folded back for display. A sturdy carrying handle is an integral part of the carton. The shipping case holds 1 doz. bottles—four of the three-bottle units. Bottles, cartons and shipping case, Owens-Illinois Glass Co., Toledo, Ohio.

20 Red and white peppermint-striped tube containers have replaced flat cartons formerly used by Plasti-Glo Co. to package its daylight-control traverse rods for draperies. Said to be the first hardware item ever packed in a tube, this container is easier to pack and ship, lessens damage in transit and affords display value. Container, Cleveland Container Co., Cleveland, Ohio.

21 The Spring Cotton Mills, capitalizing on the value of color in packaging its Springmaid line of sheets and pillow cases, claims to be the first in its field to use six-color gravure printing on cellophane. The Spring Knight package shown holds a pair of sheets in an automatically wrapped, compact, easy-to-handle package calculated to promote impulse buying. The background is in two shades of blue, with center illustration in full color. Sufficient unprinted area remains for the customer to view the products. Wraps made by The Dobeckmun Co., Cleveland, using DuPont cellophane. Wrapping machine, Hayssen Mfg. Co., Sheboygan, Wis.



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UNIT PACKAGE has been fairly well standardized on this type of cold-waxed paperboard tray with heat-sealed overwrap of moistureproof, gasproof, transparent film. These are 9- and 12-in. roses as packaged by the Flora-Pak Research Corp. during the Ohio State research.

Flower pre-packaging

GROWERS ARE PUSHING IT, DESPITE INDIFFERENCE
OF RETAIL FLORISTS; THE REFRIGERATED SHIPPING
CONTAINER STILL IS A PROBLEM. By Gordon D. Koon*

Pre-packaging of cut flowers has come a long way since the movement really started less than five years ago. It is a good time to stop and take stock—to examine the origin of the practice, the reasons for it, the methods that have been developed and the prospects for the future.

It is almost a classic example of the extension of packaging—for protection, convenience, economy and sales appeal—into a field where it had not previously existed. If the movement attains its full objectives, a sizable new market will have been created for packaging materials and machinery.

Although pre-packaging has been variously interpreted, the original objective was to develop a method of handling flowers in a way suited to modern merchandising so that volume sales at a reduced mark-up would bring the shorter-stemmed flowers of good quality to a level where the home user could and would buy, thus opening a new and practically untouched market. The motto has been, "More flowers for more people for less money."

Background of development

Packaging of a sort was tried with flowers during the lean years of the 1930s when greenhouse operators were

searching desperately for any kind of outlet; but, due to improper materials and methods, attempts ended in failure. During the war years when supply could not meet the demand, pre-packaging was dropped, to be revived later when threats of postwar gluts and reduced prices showed the need for means of expanding the sale of floral products and bringing about a change in the consumer concept of flower buying—long one of purchasing flowers only for special occasions such as weddings and funerals.

A recent survey of retail florists indicates that about 65% of the sales are funeral work and 25% special-occasion purchases. A meager 2 to 4% of the gross sales goes into cut flowers for home users.

Many retail florists when confronted with the possibility of developing new and untouched territory by merchandising methods re-

tort that there are just so many people that will buy flowers and when this demand has been satisfied, sales cease. Their reasoning is that people are going to buy just so many flowers regardless of price, so it would be foolish to alter the usual 100% (or more) mark-up.

But survey results show that if flower prices were more reasonable, 40% of the flower buyers would still buy only for special occasions, 10% would buy two or three times a year and 48% would make purchases at weekly or monthly intervals. This 48% constitutes the market that must be developed if gluts are to be diminished and uniform prices established.

Nevertheless, the average retail florist today looks to pre-packaged flowers as a holiday "must," but has no use for them otherwise. Interviews with florists following a holiday

* Of Pike's Peak Greenhouses, Inc., Colorado Springs, Colo.; formerly of the Floriculture Division, Ohio State University, Columbus, Ohio.

find pre-packages praised for their ease of handling, fine appearance and quality of the flowers, sales appeal of the package, reduced waste, facility of preparing orders in advance, reduced delivery damage, elimination of the necessity of trimming stems and arranging flowers, less need of experienced help and better keeping quality of the flowers. Every one of the advantages he admits is forgotten when he puts a price on the packages. The flowers look nicer packaged, so they are priced higher. This reasoning will never increase the consumption and consequent production of flowers.

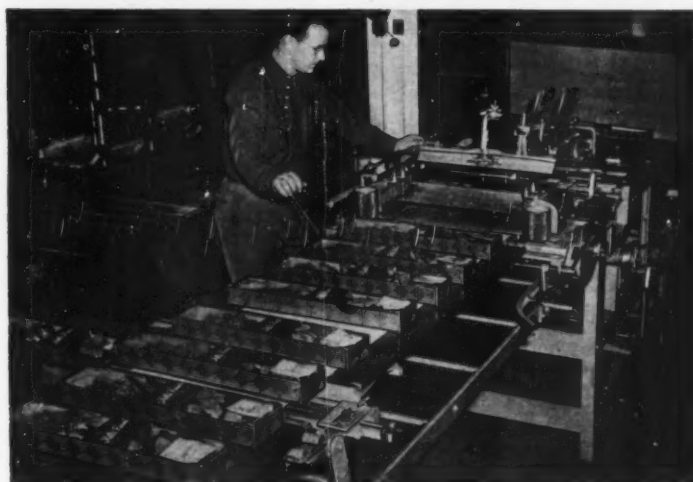
The future of packaged flowers will be bright only if some of the old, out-

the commercial pre-packaging of cut flowers. Andrew Hauge was followed in turn by Willard Bryant (now handling the packaging operations for the S. S. Pennock Co., Philadelphia), John L. Swingen (now with A. N. Pierson, Inc., Cromwell, Conn.) and the writer. Financial aid has been provided by Roses, Inc., the national association of greenhouse rose growers. During the marketing phase of the program the Flora-Pak Research Corp. was organized by a group of interested parties to provide further aid.

Today, major concerns pushing the venture include Berthold-Grigsby, Inc., Cleveland, Ohio; The Hill Floral

Four factors affect the physiology or life processes of the flowers: (1) increased carbon-dioxide content of the atmosphere within the package resulting from respiration of the flowers; (2) a high moisture content (humidity) of the atmosphere within the package attained by introducing moisture as a fine spray; (3) a desirable moisture supply in the plant tissues prior to packaging and (4) a recommended storage temperature of 38 to 42 deg. F. The objective is to effect the greatest possible retardation of maturation without impairing the ultimate keeping quality of the flowers.

The bare essentials for any flower-packaging operation include trays



VOLUME PRODUCTION requires an automatic wrapping and sealing machine. This is a Hayssen, Model 15-25, in action at Hills Floral Products Co., Richmond, Ind.



HILLS' PACKAGE for roses includes folder on care of flowers.

moded marketing practices are revised. Retail florists are being given first chance to accept pre-packaged flowers. Should they fail, it seems inevitable that the large chain food stores—of which the average retail florist has a deadly fear—will take over packaged flowers. Some steps in this direction have already been taken.

Anticipating postwar gluts and believing that a ready and practically untouched market was to be found in the home user, work was begun in 1945 in the Floriculture Division at Ohio State University by Andrew Hauge, a graduate student, under the direction of Prof. Alex Laurie. Out of this work developed the basis of

Products Co., Richmond, Ind.; The Denver Wholesale Florists Co., Denver, Colo.; The S. S. Pennock Co., Philadelphia, Pa.; The White Bros. Rose Corp., Medina, N. Y., and A. N. Pierson, Inc., Cromwell, Conn. Smaller concerns—including growers, wholesalers and retail florists—are doing some packaging and indicate that they intend to explore further.

Unit-package requirements

Excellent results are achieved with most cut flowers by packaging them with their stems out of water in an open-faced, cold-waxed tray overwrapped with moistureproof, gasproof and heat-sealing transparent film.

with cleats and lids, transparent film and a hand sealing iron. Such facilities as tables, water sprayers and refrigeration also must be available. When packaging is undertaken in volume, an automatic wrapping and sealing machine becomes a necessity. The Hayssen packaging machine, Model 15-25, is being used by many of the larger packaging concerns.

After four years of research at Ohio State, the mechanics of pre-packaging had been thoroughly worked out by 1949. The marketing technique had been perfected after selling through retail florists and supermarket outlets for more than a year. The most important problem remaining

was to improve shipping procedures. Since the unit package presents no real problems and has become more or less standard as described above (and more fully in a previous article in MODERN PACKAGING[†]), the balance of this article will be devoted to the shipping-container problem.

Shipping-container tests

Shipping is no problem during the spring, fall and winter when temperatures are below 65 to 70 deg. F. and not below freezing. No difficulties will be experienced so long as the packages are packed compactly in a corrugated container. Lining the container with five or six thicknesses of newspaper and putting newspaper between each layer of packages serves as additional insulation and protection.

It was necessary, however, to have some means of protecting shipments from more extreme temperatures. Representatives were called in from several box companies. They made their suggestions and had sample containers made up for testing.

All containers were made to hold 24 packages measuring 2 by 4 by 18 in. In running the tests, flowers were packed in the trays in the usual manner and used until they began to deteriorate. Temperatures within the containers were obtained by use of thermocouple wires placed strategically throughout the interior, with one or two wires left outside to record outside temperatures. The wires were connected to a master dial which was connected to a potentiometer from

[†] See "Flowers for All" by Alex Laurie and Willard Bryant, MODERN PACKAGING, June, 1947, p. 110.

which temperature readings were obtained directly.

Upon recommendation of the box-company representatives, the use of a conventional florist's box (container and lid separate) was discarded. Containers used were of the regular slotted style. The top and bottom were sealed securely with strips of gummed tape. This was done by running one strip of tape across the center where the outer flaps join and then a strip on each side going around the corners a few inches to make sure all cracks were sealed.

Construction of the containers was aimed toward simplicity and reasonable cost. It was thought that a maximum container cost of \$1 should be allowed, including the cost of the refrigerant, if used. Most packaging firms add 50 to 75 cents for packing charges and indicated that this could be increased slightly for a better container.

Insulating materials

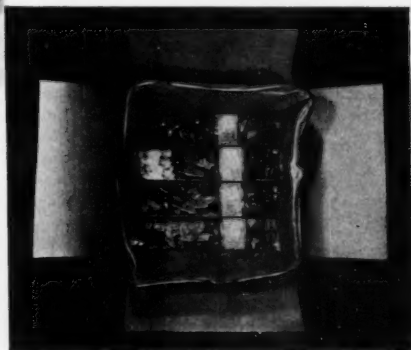
Regardless of whether or not refrigeration is incorporated in the shipping container, it is advisable to use a well-insulated container. Insulating materials considerably better than newspaper and suited for lining regular corrugated containers are:

Name of material	Manufacturer
Thermocraft (or Plypak)	Hinde & Dauch Paper Co., Sandusky, Ohio
Jiffy Blankets	Jiffy Mfg. Co., Hillside, N. J.
Fiberglas	Owens-Corning Fiberglas Corp., Toledo, Ohio

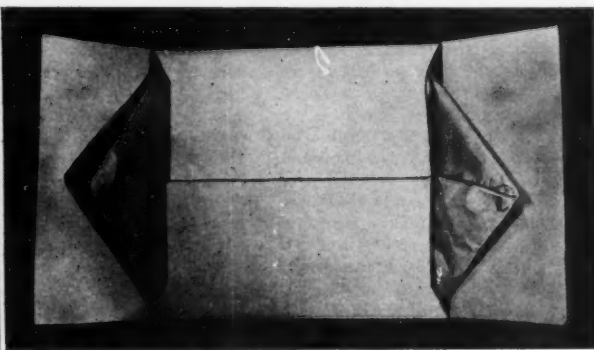
These materials may be used to delay freezing in cold weather or to retard the increase of temperature in hot weather. For summer shipments, the pre-cooling of flowers and container plus the use of an insulating material with or without refrigeration is advisable. Conventional corrugated shipping containers offer an insignificant barrier to rising temperatures and refrigeration at its best is effective only in a localized area near the refrigerant. Double-walled corrugated containers and single-ply containers with inner liners offer much more protection to the flowers.

Regular slotted corrugated containers lined with Thermocraft are designated as Insulpak containers by the manufacturer. The sides are lined with two pieces of the eight-ply corrugation (Thermocraft); top and bottom pads make the lining complete. The Insulpak containers used for these tests had inside dimensions of 18 1/2 by 17 by 15 in. and held 24 packages of roses 2 by 4 by 18 in. The single-ply corrugated container weighed 3 lbs. and the liner about 2 lbs., making the total container weight about 5 lbs. The packed container weighed 23 lbs. total and cost \$1.41 to ship from Columbus to Cleveland by express (150 miles).

The procedure for packing this container is relatively simple. The packaged roses, corrugated containers and Thermocraft liners and pads are all pre-cooled to about 40 deg. F. Packing is done in the cooler. The bottom pad and lining are inserted into the container and then the packages are placed four to a layer and six layers deep, making a compact and neat ar-



JIFFY BLANKET one-piece liner used as insulation in standard shipping pack of 24 trays of flowers. Filler material is macerated paper.



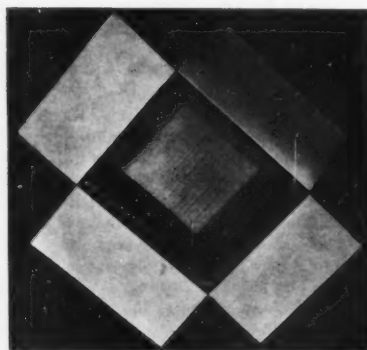
SHOWING FOLDING of the blanket liner over the flowers and between flaps of the container. All of the openings are then sealed with tape—one strip across the center and one on each of the sides.

rangement. The top pad is inserted, flaps are closed and the top is sealed tightly by tape.

Packaged flowers pre-cooled to 40 deg. F. and packed in the manner described will remain below 65 deg. F. for about 8 hrs. when the outside temperature averages about 80 deg. F. When the temperature rises to 85 to 90 deg., this time is reduced to 5 or 6 hrs. Of course, flowers can withstand temperatures above 65 deg. for a few hours. This was demonstrated in one test where packaged roses held for 12 hrs. at 65 to 75 deg., followed by five days' storage in the cooler at 40 deg., held up nearly as well as those taken directly to the cooler and held for the same length of time before being placed in vases at room temperature. Those subjected to 75 to 85 deg. for 12 hrs. showed poor keeping quality. Twelve hours at 85 to 95 deg. ruined the roses completely.

Jiffy Blankets can be used in a manner similar to Thermocraft as an insulating liner for the shipping container. This material is made up in blanket form with two heavy sheets of paper enclosing a filler of finely macerated paper.

Two methods of inserting this liner were proposed. In one instance, two pieces of Jiffy Blanket were used. One was placed in the corrugated container so that enough protruded up on each end for overlapping over the packages prior to closing the top flaps. The other piece was put in the container in the opposite direction. The result was one thickness of Jiffy liner on the sides and two thicknesses on the top and bottom.



INSULPAK CONTAINER. lined with 8-ply corrugated material on all the sides, furnishes good insulation.

Location of thermocouple wires in containers	Hours at testing temperature (9 deg. F.)							
	0	1	2	3	4	5	6	7
Top of 1st layer in center								
Thermocraft	66	48	48	45	43	41	39	37
Jiffy Blanket	66	57	54	52	50	48	41	37
Newspaper	66	43	43	43	39	39	36	32
Top of 3rd layer in center								
Thermocraft	66	64	63	61	59	55	52	52
Jiffy Blanket	66	64	64	63	61	59	54	52
Newspaper	66	61	61	59	55	54	48	46
Top of 5th layer in center								
Thermocraft	66	63	63	59	57	55	52	52
Jiffy Blanket	66	66	64	63	61	57	52	50
Newspaper	66	61	61	57	52	50	48	45
Bottom in center								
Thermocraft	66	48	45	41	39	37	36	36
Jiffy Blanket	66	43	39	37	36	34	30	28
Newspaper	66	39	36	32	32	30	30	30
End of container								
Thermocraft	66	46	45	41	39	37	34	34
Jiffy Blanket	66	43	43	39	36	34	28	26
Newspaper	66	34	30	27	27	23	23	21

The other method of using the material required a one-piece Jiffy Blanket which formed a rectangular liner. This was inserted in the corrugated shipping container so that equal amounts protruded from the top and bottom of the container. The bottom flaps were then folded in, pushing the Jiffy liner in with them. After packing the container, the top flaps were also pushed down, resulting in a complete lining of Jiffy insulation.

Tests proved Jiffy Blankets to be good insulating material, nearly as effective as Thermocraft. They have the disadvantage of being somewhat bulky and clumsy to handle, especially the one-piece liner. Also, if the blankets are torn, the confetti-like filler comes out.

Time-temperature test

A test was made to determine the relative value of Thermocraft, Jiffy Blankets and newspaper as winter insulating materials for lining shipping containers. The trays of flowers were packed in the containers at room temperature (66 deg. F.). The containers were sealed and placed in a cooler at 9 deg. F. for testing. The newspaper-lined container had six thicknesses of newspaper on the sides and 12 layers on the top and bottom. The Jiffy liner was a one-piece blanket. Results are shown above.

As can be seen, the Thermocraft and Jiffy liners were superior to newspaper. Packed at 66 deg. F. and tested at 9 deg. F., Thermocraft gave complete protection from freezing for

5 to 6 hrs. and newspaper 1 to 2 hrs. These intervals refer to the period during which no freezing temperatures were recorded within the containers.

Fiberglas liner

Containers lined with Fiberglas insulation consisted of a 200-lb.-test regular slotted carton lined with three pieces of 1-in. Fiberglas blanket (PF 612) with an inner regular slotted carton to hold the packaged flowers. The container was of the same size as containers previously tested, holding 24 packages of roses 2 by 4 by 18 in. The Fiberglas lining was cut so that one piece 18 by 48 in. covered two sides and the bottom. A second piece lined the other two sides and made a second thickness on the bottom. The top liner was a pad 18 by 21 in.

The container was then assembled by inverting the inner container, placing the two liners over it and fitting the outer container down over the inner container and Fiberglas lining.

The total weight of the assembled empty container was 8 1/2 lbs., broken down as follows: inner container, 2 lbs.; Fiberglas, 3 1/2 lbs.; outer container, 2 1/2 lbs. An Insulpak container of the same size lined with eight-ply Thermocraft weighed 4 1/2 lbs.

The container lined with Fiberglas displayed good insulating qualities, being somewhat more effective than the Insulpak container lined with eight-ply Thermocraft when the inner

container was used with the Fiberglas. Elimination of the inner container did not significantly reduce its insulating properties and resulted in a more economical container.

Refrigeration of containers

In selecting a means of refrigeration, regular ice, dry ice and "Super-Ice" were tested. Regular ice presented the problem of damage to the packages from the melting ice; difficulty was also encountered in getting sufficient cooling. Dry ice appeared to be the best answer to the problem because it cooled rapidly and did not damage the packages when it evaporated.

Super-Ice is a product prepared by soaking bags of a specially prepared material (sawdust and chemicals) in water for a few minutes, draining and freezing. Super-Ice does not seem to be adapted for use in shipping packaged flowers because it does not cool rapidly enough, is bulky and does make some moisture when it melts. However, it is suited to shipments of loose cut flowers and until a good container for packaged flowers is developed employing dry ice as the refrigerant, Super-Ice may be used in preference to wet ice.

With due respect for the freezing power of dry ice, the writer is still inclined to believe that dry ice is the cooling medium to use for true tem-

perature control when shipments are made during the heat of summer. Dry-ice and shipping-container manufacturers appear unable to provide any concrete suggestions. It will be up to the individual shipper using the information at hand to work out his own arrangement. The two big problems of insulation between the ice and flowers and circulation of the cooling carbon-dioxide gas must be worked on further.

When used in quantity, dry ice costs three to four cents per pound in 50-lb. blocks. There is an additional charge of about one cent per pound for cutting the ice to size. The cost of dry ice would probably average in cost about 25 cents for each of the containers.

Dry ice presents the problem of protection of the flowers near the ice from freezing. It has a temperature of 109.6 deg. below zero and tests showed that freezing temperatures are very difficult to prevent regardless of what material is used between the ice and flowers.

Best cooling was obtained by placing the dry ice in the top of the shipping container. When dry ice evaporates, carbon-dioxide gas is released. The gas, being heavier than air, tends to penetrate downward, thus aiding in circulation and cooling of the interior of the container. However, poor cooling of the lower layers

indicated that ice is also needed in the bottom.

By placing dry ice in Jiffy bags and a Thermocraft pad between the bags of dry ice and the flowers, freezing injury is prevented. However, these materials restrict the circulation of the cooling carbon-dioxide gas given off when the dry ice evaporates. Cooling of the packages in the container is limited to the top layers, where direct conduction from the dry ice prevents heating.

A dead-air space is considered to be a very good insulating medium, so a container was constructed having a 2-in. air space between the ice and flowers. Tests proved the air space to be sufficient protection if the flowers were at room temperature when packed and the packing was done at room temperature.

Of the various means of insulating between the ice and flowers, the air space seemed to be easiest and most practical. Tests revealed that to prevent freezing temperatures in the upper layers of flowers near the ice, the packaged flowers must be packed at room temperature. This delays the first rapid drop until external temperatures can penetrate the container and buffer the effects of the ice. But in these tests, where the carbon-dioxide gas from the evaporating dry ice was unable to penetrate into the container, (This article continued on page 200)

Pre-packaged asparagus shipped from California



PRE-PACKAGED ASPARAGUS is packed in pyramid crates in Stockton, Calif., for trial shipment to Chicago and New York. Favorable retail and consumer reactions indicate that pre-packaging before shipment may become a permanent operation.

Success for at least one venture in pre-packaging perishable produce prior to transcontinental rail shipment is reported by the Atlantic Commission Co., produce-buying affiliate of the Great Atlantic & Pacific Tea Co., which recently pre-packaged 1,200 bunches of asparagus in 1-lb., acetate-wrapped containers in Stockton, Calif., and shipped them to Chicago and New York markets. The shipment reversed the route of a similar test in which pre-packaged asparagus was sent from the East to the West Coast.

In preparing the produce for shipment the spears were washed, sorted and cut to 7-in. lengths, then weighed by hand and placed in paperboard trays for wrapping. The boxes were overwrapped by hand with acetate film and were solvent sealed.

The consumer units were packed in pyramid crates, 30 per crate, and

shipped in express cars cooled by bumper ice. The cars ran 41 deg. F. temperature at the top and 38 deg. F. at the bottom. Thirteen of the crates were routed to Chicago and the remaining 27 crates were shipped to the New York City market.

Results of the test are encouraging but as yet inconclusive, it is said. The asparagus arrived in shape in spite of overcrowding the crates and car inspectors believed this handling method would decrease damage to the tender tips during transit. The produce is said to have arrived full-flavored and fresh and consumer reception was favorable.

Further testing of this method of pre-packaging asparagus may lead to its adoption as a permanent operation, it is said.

CREDIT: Acetate film, "Lumarith," Celanese Corp. of America, New York.

Frozen coffee in glass

SNOW CROP IS FIRST WITH A REVOLUTIONARY NEW PRODUCT

AND FIRST WITH A GLASS PACKAGE IN THE FROZEN-FOOD FIELD

Reportedly the first large-scale application of a glass package in the frozen-food field is the jar for the new Snow Crop Frozen Coffee Concentrate currently being introduced by Snow Crop Marketers Division of Clinton Foods, Inc., New York.

The new package is a particularly interesting example of package adaptation to the requirements of an entirely new type of product. The frozen coffee concentrate is the latest development in prepared coffee, which in addition to convenience, is said to approach more closely the taste of fresh-brewed coffee due to better flavor retention.

Before freezing, this new coffee concentrate is a liquid and it is again a liquid when thawed and used by the consumer. It therefore requires a liquid-holding package before the product goes to the freezing unit and it requires a liquid-holding container convenient for the consumer to spoon out the coffee for use after thawing. The latter requirement demanded in addition a convenient reclosable package—something with a lug or screw cap—that would make it easy for the consumer to store in the refrigerator.

After considerable study of various types of metal and flexible packages, the company decided that the only feasible container from the standpoint of convenience and economy was a glass jar similar to the type used for instant soluble coffee powder with which consumers were already familiar. But would the glass container withstand the freezing process?

In cooperation with suppliers of glass containers, the company determined that a glass jar would do the job. It proved to withstand freezing temperatures successfully to 30 below zero. If sufficient neck room was allowed, no trouble was experienced with expansion of the product during freezing. A standard liquid-filling line equipped with ultra-violet sterilization was set up for putting the liquid concentrate into jars and capping them prior to freezing.

Jars of 5½-oz. capacity are used, holding a sufficient quantity of the frozen coffee concentrate to make 28 to 34 cups of coffee. They are kept in the frozen state until sold. Consumer directions are to "store in freezer until opened—after opening, anywhere in the refrigerator." In frozen form, the coffee concentrate, it is said, will stay fresh indefinitely.

Because of the moisture to which the package must be subjected under refrigeration, it was decided to use applied color labeling (ACL) for permanence under all conditions. This labeling also greatly enhances the appearance of the amber glass jar. Colors are white against a bright red background with the word coffee in yellow. A very realistic effect of a cup of coffee is achieved in the design by leaving clear that portion of the surface illustration showing the contents of a cup of coffee, so that

the actual liquid is visible through the amber glass, appearing as a miniature cup of coffee.

Another innovation is the use of the top surface of the screw cap for complete direction copy. In this location it is always visible to the user—permanently lithographed on the jar cap.

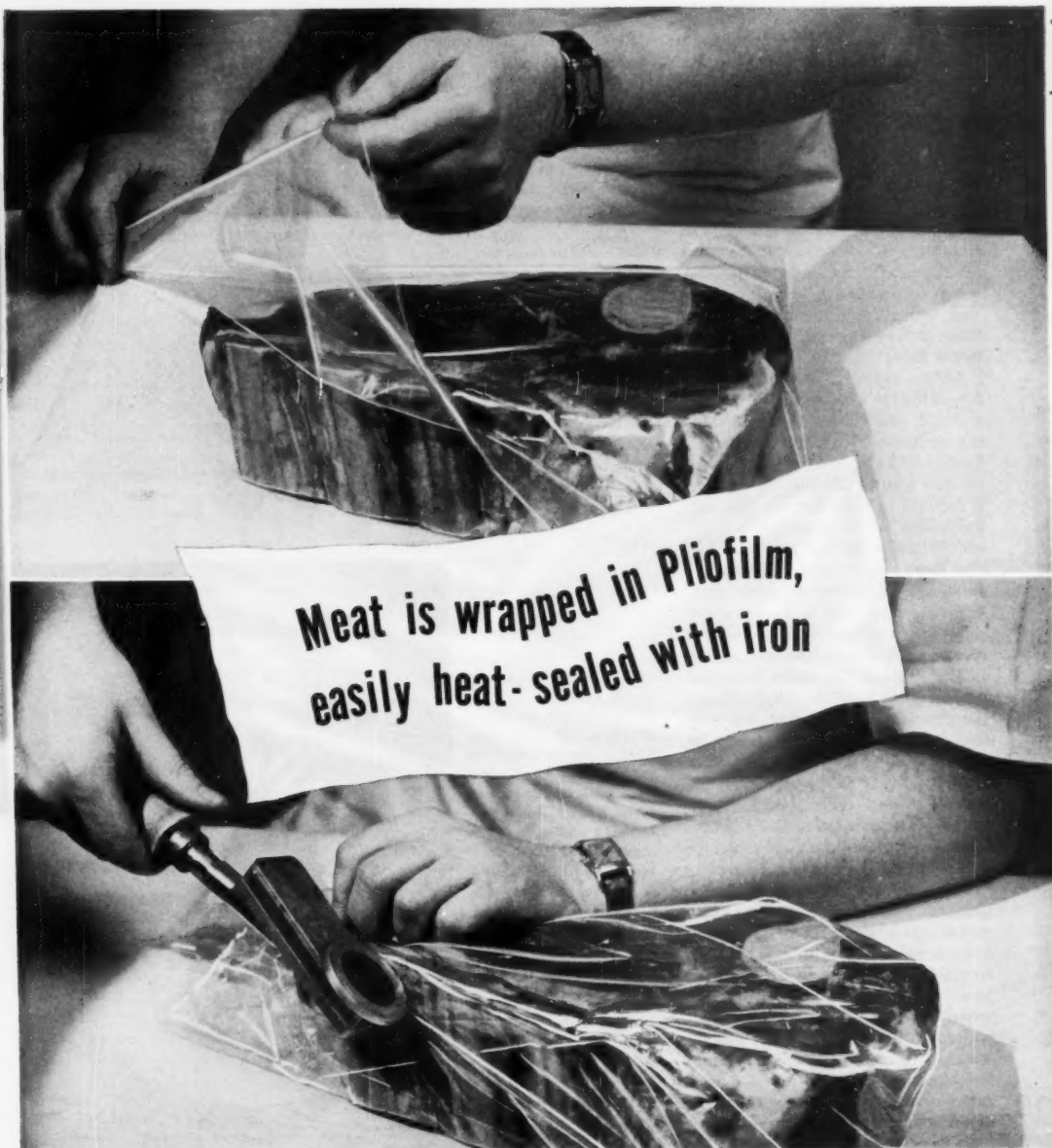
Snow Crop Frozen Coffee Concentrate has been test marketed in five Eastern cities over a period of nine months. To date, sales are being concentrated in Eastern markets where the first two plants have been set up to produce the product in New York and Boston, but expansion into new markets is taking place just as fast as production can be increased to keep up with demand created by the quick acceptance, the company says.

CREDITS: Jars and closures, Anchor Hocking Glass Co., Lancaster, Ohio, and Owens-Illinois Glass Co., Toledo, Ohio.

DIRECTIONS are lithographed on jar cap where they are easy to see. Bottle is amber glass with applied color label (ACL) in white, red and yellow, for permanency against moisture conditions in refrigerator storage. No ink over the top of the coffee-cup illustration gives effect of real coffee showing through the amber glass jar.



Presenting: a tougher, tighter,



**Meat is wrapped in Pliofilm,
easily heat-sealed with iron**

Plioform, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

self-service package

for cut meats and other odd-shaped products

-the new FM-1 Pliofilm

(Now available in unlimited quantities)

IRREGULAR shaped objects your packaging problem? The answer's all wrapped up in the new, stronger **FM-1 Pliofilm**. Just look what it does for meats:

1. It's tough and rugged, won't shatter or run. Invites customer handling and inspection. Double wraps are completely eliminated, re-wraps reduced 95%—saves labor and material cost.

2. **FM-1 Pliofilm** preserves the "bloom" of fresh red meats. And it's just as good for luncheon meats and smoked meats.

3. It permits tighter wraps—can even be stretched over irregularly shaped and jagged cuts.

4. It eliminates unsightly wrinkles. Easy to wrap and heat-seal. Either side of film can be used.

5. **FM-1 Pliofilm** is "non-fogging." Showcase glare is diminished, giving meats a more natural look.

You'll find this new **Plio**film ideal for any product requiring a strong puncture-resistant wrap with controlled moisture-protection. Write for complete information to Goodyear, Plio film Dept., Akron 16, Ohio.

Good things are better in

Plio film



3-way protection against air, moisture, liquids

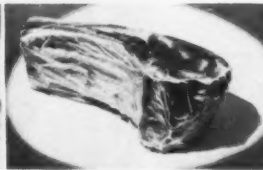
Even sharp bones won't puncture this rugged film



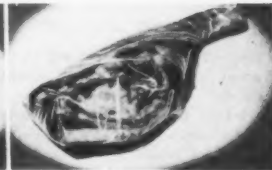
SPARERIBS



ROLLED ROAST



RIB ROAST



LEG OF LAMB

DISPLAY

The new step-stand-type counter merchandiser adopted by Rexall for Plenamins holds three packages and does effective eye-level promotion without taking up undue counter space. Of metal construction, the display utilizes red and black coloring with the vitamin capsules reproduced realistically by halftone using yellow, black and white. The display may be used for self-service sales. Display, Advertising Metal Display Co., Cicero, Ill.

The lawn and flower-border scene of this three-dimensional paperboard display for Swift & Co.'s Vigoro, End-O-Weed and End-O-Pest gardening aids is one of the new color transparencies produced by lithography in eight colors on vinyl plastic sheeting. A backlighted shadow box makes the display do night as well as daytime promotion. An actual 10-lb. bag of Vigoro, a chrome trowel, a gardening glove and a garden flower pot rest on the "weathered oak" shelf, supplying an authentic note to the scene. Display (Technichrome process), Einsen-Freeman Co., Inc., Long Island City, N. Y.

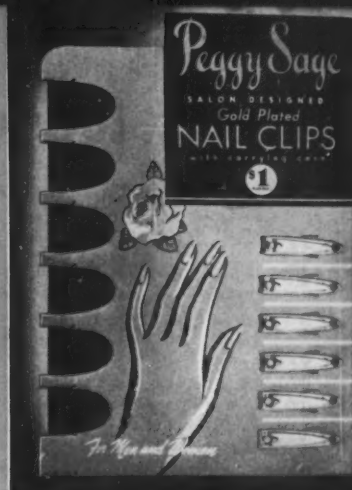
Sturdy corrugated board solves a difficult display problem when used as a floor base for Kasco brooders to demonstrate comparative chick-feed tests. The display, suitable either for aisle or window use, is easy and inexpensive to ship and simple for retail distributors to assemble. Display, Ottawa River Paper Co., Toledo, Ohio.

Pick-A-Dillies—colored polystyrene picks for party sandwiches or cocktail snacks—become an impulse item when put in this counter unit with a top-hat illustration as the center of attraction. The unit contains household packs of 100 in duplex cellophane bags. Display, Shuttleworth Carton Co., New York. Bags made by Bagphane Corp., Brooklyn, using cellophane supplied by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Canned tennis balls get out on the counter when shipped in these strong folding display cartons being used by the Pennsylvania Rubber Co. The carton, which is distinctively and simply printed in dark blue and yellow on white, holds four of the vacuum-packed containers. Carton made of Tuf-Bord by Robert Gair Co., Inc., New York.

GALLERY

General Foods Corp.'s Post Cereal Division has introduced this eye-appealing, practical display constructed of 200-lb. test "B" flute white-coated corrugated board. The top panel is designed with a center tuck-type strut which adds to the structural design and permits a greater merchandise load. Die cut and stitched into a one-piece assembly, it measures 21 by 17 by 16 in. Display, Display Div., River Raisin Paper Co., Monroe, Mich.



Ease of handling was the primary objective of the design of this combination shipping container and display introducing the new "Get-Acquainted" size of bottle for Dubonnet. The adjustable wings and colorful red and white awning flip into place quickly and easily. The advertising message is overprinted in black and red on an over-all linen-weave design. The 6.5-oz. bottles are packaged 24 to the corrugated display. Since introduced less than a month ago, Dubonnet sales are said to have increased appreciably. Display, Grand-City Container Corp., North Bergen, N. J.



This self-selling counter display card for salon-designed, gold-plated nail clips is one of the newest Peggy Sage units. Six of the clips are displayed on the right side of the card, while on the opposite side the snap-button carrying cases are fitted into die-cut openings. The nail clip and carrying case retail for \$1.



The counter display for Sta-Free, Dermetics' new spray deodorant, consists of a foil-covered tray and separate back piece. Private-mold, opaque, polyethylene bottles, developed from an idea originated by G. D. Runnels, company president, are aqua with white lettering. Each bottle is in a boot carton. Design, Martial & Scull, New York. Tray, Wallace Paper Box Corp., New York. Display card, United Lithographing Corp., New York. Individual carton, Art Display Printing Corp., Brooklyn. Bottle, Plax Corp., Hartford, Conn.

These dummy display cartons of light paper-board stock, replacing dummy metal containers, are helping Stahl-Meyer, Inc., to lick point-of-sale material costs by simulating the actual product which is perishable and therefore cannot be used for window and shelf display. Display, Consolidated Lithographing Corp., Brooklyn.

Baby feeder

BEECH-NUT INTRODUCES A 500-A-MINUTE JAR FILLER

WITH SOME ADVANCED FEATURES FOR ACCURACY, SAFETY AND SANITATION

Constantly expanding demand for canned and glassed baby foods puts pressure on producers for ever-faster filling machinery—always, of course, with due regard for safeguarding of purity, which, in the baby-foods industry, is watched with particular zeal.

The latest development in connection with this trend is a streamlined 30-pocket plunger filler which the Beech-Nut Packing Co., one of the largest producers of glassed infants' foods, has installed in its plant at Canajoharie, N. Y. The filler has been in continual operation, eight hours a day, five days a week, since January with neither break-in or try-out period. During that time the filler reportedly has handled successfully a wide variety of strained foods at the average rate of 500 five-oz. or 450 eight-oz. jars per minute. Top speed for the new filler is estimated to be 650 per min. for the 5-oz. and 550 for the 8-oz. jars.

The operating principle of this machine is essentially the same as that of conventional plunger fillers. The product is drawn into an open-topped

cylinder, at the bottom of the filler bowl, by the downward stroke of the piston. A cut-off plate then closes the top of the cylinder so that the upstroke of the piston forces the material into the can or jar. A special by-pass, activated by the no-jar, no-fill mechanism, allows the product to be returned to the filler bowl if no jar is present under the spout.

Special features of design have been necessary to achieve these production records. A new jar-handling device cuts down shock and a straight tangent take-off removes the jars without any sudden change of direction. An electrically operated no-jar, no-fill mechanism makes it possible to maintain the high speed and still avoid strain on the glass jars. Modifications in the fill mechanism give extreme accuracy of fill (maximum variation on an 8-oz. jar is said to be plus or minus 0.05 oz., or 0.6%) and this accuracy is so consistently maintained that no headspacing operation is required, resulting in a considerable saving of material and measurably increased production. Size changes are simplified; to change to a different-

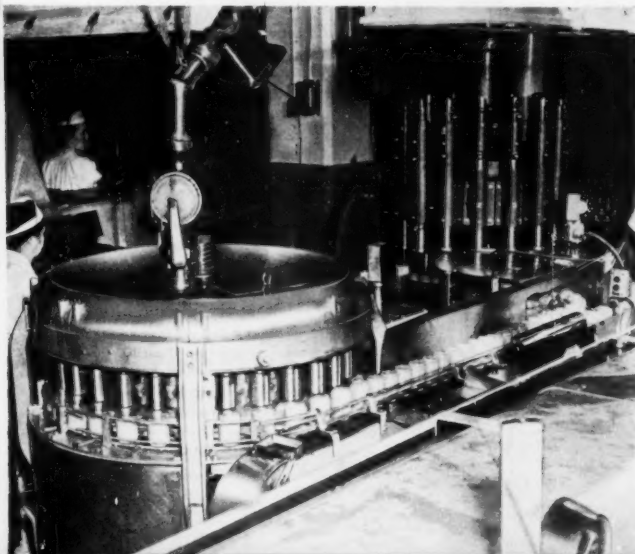
sized jar, all that is needed is to change the feed star wheel and make a few adjustments. An automatic float valve in the filler bowl controls the flow from holding tank to filler.

Important to the high sanitary standards which Beech-Nut maintains is the fact that the feed hopper and all other food-contact parts of the filler—all made either of stainless steel or of a copper-free nickel alloy—are designed to be easily disassembled for periodic cleaning. The conical shape of the filler bowl makes for easy cleaning as well as product uniformity during filling.

At the Beech-Nut plant, an 8-hr. clean-up shift always follows each 8-hr. day. During daily clean-up all contact parts of the filler are disassembled and each part thoroughly cleaned. Parts are left to dry on a specially constructed rack and then re-assembled—but always by a different shift of workers, so that the re-assemblers can check the work of the clean-up shift.

The line operates as follows: Jars are unloaded by hand into an unscrambler and carried on a single-line conveyor past two glass inspectors into the washers where they are sterilized. Here they are picked up on the filler in-feed conveyor, pass another inspector and move into the filler. The straight tangent take-off removes the filled jars to the capper and they then enter a magnetic retort for processing. The jars are processed in the retorts for the required time and then travel through a cooling canal and are finally unloaded in another magnetic unit. Drying, labeling and casing operations are conventional. After casing, the food is stored for a specified time and re-inspected prior to shipment.

HIGH SPEED with great accuracy of fill and unusual adaptability to thorough cleaning are features of new 30-head plunger filler adopted by Beech-Nut Packing Co. It is especially designed for safe handling of glass.



CREDITS: FMC 30-Pocket M & S filler, Sprague-Sells Div., Food Machinery & Chemical Corp., Hoopeston, Ill. Jar washer, Standard-Knapp, Div. Hartford-Empire Co., Portland, Conn. Capper, Anchor Hocking Glass Corp., Lancaster, Ohio. Unscrambler, magnetic loader and unloader, W. F. & John Barnes Co., Rockford, Ill.

19th National **PACKAGING CONFERENCE and EXPOSITION**

Chicago, April 24-27, 1950

The visitor who merely passed in front of each booth was forced to walk 5,422 ft., or slightly more than a mile. This is the only complaint on record against the American Management Assn.'s 19th Annual Packaging Exposition & Conference, held April 24-27 at Chicago's Navy Pier. It was, by all standards, the biggest and most successful packaging show of all time.

There were 19,100 registrants for the Exposition—despite the rain that poured down for the first three days—as against 11,000 last year at Atlantic City and the previous record of 16,000 at Philadelphia in 1947. Final figures showed that there were 242 exhibitors and the show occupied 140,000 sq. ft. of floor space—both figures being well above the previous records. There were close to 1,000 registrants for the five Conference sessions held at the Pier during the first two and a half days of the show.

Exhibitors reported, almost unanimously, that it was an eager, buying crowd on the lookout not for mere novelty, but for sound, economical improvements in packaging materials and machinery. And the crowd was not disappointed. Old hands reported that there had never been a show at which there were so many new things so well displayed.

There was a great concentration of interest in polyethylene, in both film and molded forms, and in newly developed machinery for handling it. Converters' booths

were bright with examples of polyethylene, cellophane and Pliofilm packaging. New machinery ran the gamut from polyethylene printing and bag-making equipment to a new giant that chops up corrugated sheets and makes them into shipping cartons of any desired size at a flip of the wrist. Polyethylene-coated paper attracted a great deal of attention, as did the new convolute-wound collapsible tube economically made of a laminated sheet of foil and film. The adhesives, paper, can, carton, glass and closure people all had new things to show.

The most important of these new developments were described in detail in the April and May issues of *MODERN PACKAGING*. We can only attempt to give here a bird's-eye view of the exposition and a summary of the Conference proceedings.

The Packaging Theatre, showing a continuous program of films, provided by exhibitors, drew the usual crowd and thousands of visitors passed through the Packaging's Hall of Fame Exhibit, set up this year for the first time by the A.M.A. on the basis of the 16 nominations made, through April, by *MODERN PACKAGING* in its continuing series. Originals of the 16 covers were displayed in a gallery-type exhibit, along with samples of the actual packages and summaries of their claims to fame.

Packaging Week, as it has come to be known, was made the occasion for such events as the annual meeting

CONFERENCE HALL at the Navy Pier, Chicago, was well filled for most conference sessions. This view shows the platform arranged for the Tuesday morning packing-and-shipping demonstration which was staged for the General Electric team.



and banquet of the Packaging Machinery Mfrs. Institute and the joint luncheon and meeting of the technical committees of the Packaging Institute. Numerous other industry groups and company meetings were held.

At the annual meeting of Exposition exhibitors it was voted to return to Atlantic City for the 1951 Exposition & Conference, to be held during the week of April 16. Robert D. Handley, advertising manager of the Sylvania Div., American Viscose Corp., was appointed chairman of the Exhibitors' Advisory Committee for the coming year. A tentative agreement on Cleveland for 1952 was reported to have been reached.

The Exposition was managed, as usual, by Clapp & Poliak, with the Exposition & Conference under the general supervision of the A.M.A. staff including Lawrence A. Appley, president; Edward K. Moss, public relations director, and J. D. Malcolmson of the Robert Gair Co., vice president in charge of the Packaging Division. John W. Cowan of the Dobeckmun Co. was chairman of the Exhibitors' Advisory Committee.

Following is a summary of discussions at the five Conference sessions:

MONDAY MORNING

THE PACKAGING FUNCTION IN THE COMPANY ORGANIZATION

Chairman, J. D. MALCOLMSON, technical advisor, Robert Gair Co., Inc., New York, and AMA vice president in charge of the Packaging Division.

The Role of Packaging in Introducing a New Product—H. L. BERGREN, assistant general sales manager, Kraft Foods Co., Chicago. The Kraft Foods Co., Mr. Bergren explained, manufactures and distributes some 300 cheese items. They range in size from 1-oz. portions to 3,000 lbs. each. Every one of those items requires a wrapper, box or container of some kind. Very often the sales success or failure of a cheese product may hinge upon its package.

Kraft this year is engaged in the most ambitious new-product program of its entire history. Complete distribution of these products has been so recently undertaken that national advertising is just now getting under way. Two new lines are involved. One of these is natural cheddar cheese in 1/2-lb. and 1-lb. packages. The other is a group of pasteurized process cheese varieties manufactured in sandwich-sized slices and marketed in 1/2-lb. packages. Both are produced, packaged and sealed in Kraft factories.

Both new products—Kraft DeLuxe Slices and Kay Brand Natural Cheddar—are primarily long-familiar cheeses in dramatic new packaging forms. It is definitely around package engineering and package design that our 1950 new-products venture has been built.

The Kraft cheese business is roughly divided into two major parts. Half of it is packaged cheese and cheese products such as Kraft American, Pimento, Old English Brand and Velveeta in all shapes and sizes. The other half of our cheese business, relatively little known outside the industry itself, is cheese in bulk, sold, manufactured or imported by Kraft, but seldom associated with our name by the consumer. It includes Swiss, Roquefort, Limburger, Longhorns, Daisies and Cheddars, in the trade designated as natural types.

Generally speaking, natural cheeses are made only in large or bulk styles. Your grocer buys them in bulk and retails them in small pieces, which he cuts to suit your convenience. Almost everyone recognizes the shortcomings in this kind of old-fashioned cheese merchandising from the standpoint of brand identity as well as flavor and quality of product.

Factory pre-packaging of natural cheese in consumer units has been a dream of the cheese industry since before 1900. The dream is now a reality, not only for Kraft, but also for several other well-known firms.

The spearhead of Kraft cheddar types in new consumer packages is Kay Brand Natural, a mild American cheese. The introduction of this new product has followed a carefully defined pattern right from the beginning.

First, the Kraft pattern begins with top management. It is here that the risks must be calculated, money appropriated and consideration given to long-range policy. If the proposed new product seems to have a good chance of success, the green light is given.

The next step is that of product research. In Glenview, Ill., we maintain a laboratory where technicians have the facilities for practical application of their findings. They have actual mechanical equipment to produce and package, on a pilot-plant scale, any cheese product. All new Kraft products in this second stage of development are the responsibility of technicians and specialists at the Glenview laboratory.

Our third step is that of organizing the teams to take the new item from the laboratory stage and adapt it to all the requirements of every-day competitive marketing. Evaluations and know-how are contributed by sales, packaging, advertising, cost accounting, engineering and production departments. An important member of the team is our consumer-service department, which represents the housewife in all of our planning. Here the legal department takes a look, too.

All during the third period every department is coordinating its activity into the over-all problem. Package engineering and design ideas are in progress. Preliminary advertising copy is being prepared. Point-of-sale material and selling methods are developing. Production men are adapting existing techniques or providing new machines. Timing, coordination and an exchange of ideas between the various departments are of major importance in the pattern.

Next, if the product has come along all right thus far, it comes out from under wraps for broad testing by consumer panels both inside and outside the organization. This is usually done by our advertising and consumer-service departments.

The fifth stage is the one for which the sales department is primarily responsible—market testing. For this purpose we usually select a city, or several cities, considered appropriate for the job. Here we try to obtain the real answer to the questions—Will the item sell? Are we on the right track? What changes must be made? Market testing is also the means of projecting future sales volume upon which to base plant requirements, advertising budgets, raw material inventories and the sources of supplies required for full-scale production, national distribution and national advertising.

I want to tell you a little more about a market-testing method in which we think Kraft is both unique and fortunate. We have on our own payroll a market-testing laboratory that extends all across the United States and Canada. By that I mean we do our own distributing, with but a few exceptions. Our 1,500 salesmen call on 45,000 grocery stores every day. In two weeks they will have called on every grocer north of the Rio Grande. We can ask questions and get answers almost over night. Because of the speed with which the reactions come, our errors are minimized. We can promptly correct, adjust or retrench before too much harm has been done.

In introducing our 1/2-lb. package of Kay Brand Natural American Cheddar hurdles 1, 2, 3 and 4 had been safely passed.

Packaging men came through with what looked like the best possible shape, size and mechanical handling methods. Advertising men and label-design specialists provided us with a really beautiful transparent package.

Our test market was Detroit. Salesmen put this new package into 2,000 grocery stores over night and stepped back to watch the reaction of shoppers.

It didn't take long to get the answers. The housewife was hopelessly confused. First was the Kraft name on that package; she knew Kraft only as a manufacturer of process cheese. Secondly, natural cheese to her mind was always cut in the grocery store; these packages were so neat and attractive that obviously no grocery clerk had done the wrapping job. Third



HALL OF FAME was a gallery-like exhibition arranged at the end of the North Hall. Original covers for the last 16 issues of **MODERN PACKAGING** and samples of the actual packages were viewed by most of the 19,000 visitors attending the show.

was the shape of the piece; it was square and the natural cheese she had known was always wedge shaped.

All of this confusion indicated that the package just didn't make sense to the housewife. It had the Kraft name on it and it was shaped like process cheese; therefore, it must be process cheese. The label prominently featured the words "Natural Cheddar," but women didn't read the label. Along with all the other troubles, our new wrapper so completely protected the product that she could neither taste nor smell it—and how could she judge a new cheese if she couldn't smell it?

Since that Detroit experience, we have made a few changes in the label design. However, the real job to be done by Kraft, and the entire cheese industry, is one of consumer education. Packaging men have done their work well from the standpoint of cost, product protection and eye appeal. In our opinion, the days are numbered for the old-fashioned methods of retailing natural cheese in bulk. The future lies in complete factory pre-packaging of these varieties.

In examining the role of packaging in new cheese products, we must give special recognition to the requirements of self-service merchandising. Self service has grown by leaps and bounds in postwar years. In the United States more than 80% of all chain grocery sales are now self service. The latest figures I have seen indicate that 52% of independent grocery-store business has been converted to self service.

All process cheese, as we know it today, originated with the familiar 5-lb. loaf. It was first marketed in 1921 and has been a standard item for these almost 30 years. In spite of the fact that this loaf is a factory-packaged product, it is in practice a bulk cheese item. Normally the grocer just cuts off a few slices for each customer.

But store slicing has its drawbacks, too. In the supermarket, where most sliced cheese is sold today, handling of process loaf is time consuming and costly. Housewives, grocers and manufacturers alike have long realized that more modern methods of retailing sliced cheese were considerably overdue. The eventual solution would have to be that of slicing and packaging it right at the cheese factory. It sounded easy, but it wasn't. Fresh-cut slices, even in the grocery store have an annoying tendency to stick together (that's why they spread them out shingle fashion, or put paper between the slices). Also, like natural cheese, slices often dry out and become moldy, unless sold and consumed within a very few days.

Kraft and lots of other manufacturers were trying to solve the problems of cheese in slices as far back as the middle 30s. Kraft research technicians finally found an answer. Oddly enough, our sliced cheese is not sliced at all, at least in the usual sense. Essentially, the method we hit upon is that of producing cheese in long ribbons. Each ribbon is 3 in. wide and only $\frac{1}{8}$ th of an inch thick. As these ribbons flow continuously from the machine they are automatically stacked eight high, then cut crosswise to make 3-in. squares. These stacks of 3-in.-square slices are then automatically wrapped and sealed in $\frac{1}{2}$ -lb. packages.

That settled our production problem. Every slice was uniform. The package, under refrigeration, would keep in perfect condition for several weeks. Above all, the slices separated perfectly. There was no tendency to stick together.

The slices fit together with the rectangular neatness of machine handling. The label has both eye and appetite appeal. A generous use of color on the label readily identifies each of the four kinds—American, Swiss, Pimento and Old English Brand. The label tells everything. It makes a marvelous selling display in the dairy case. We know that the excellence of the product, the convenience of the slices and the design of the wrapper was everything that we had hoped for.

In Dayton, Ohio, where we market tested the product, it was an immediate success, except for one thing. In spite of the label, a lot of housewives refused to believe the package actually contained slices. The precision stacking of those slices provided such perfect alignment that the edges had the appearance of a solid square of cheese.

In addition to Dayton, we set up seven other test markets across the country. Results were the same everywhere. Based on reports and suggestions that kept pouring in, the label design was changed several times. We even went so far as to imprint lines on the side of the package in a manner that we thought would indicate slices very plainly. Marketing research on that showed only that the customer assumed these lines were to guide her knife in cutting off a slice. The difficulty was temporary and although it still exists to some extent, we are doing a land-office business.

The Kraft pattern for introducing a new product accents the teamwork between all of our many departments. Nowhere along the line do we rely upon masterminding. We believe in the theory of practical application and a system of checks and

counter checks by men experienced in their respective fields.

We have confessed this morning to some packaging problems and experiences that had not been anticipated. I like to feel that we hit them early only because our packaging experts are maybe a year or two ahead of their time. They might have taken the easier approach of providing us with intermediate and more conventional packaging developments. We in the sales department like it better the way it is.

It's pretty evident that the packaging expert is an indispensable man in any organization. His contributions are important in every phase of merchandising. Sales management has much to gain from even closer acquaintance with you men, your research, your materials and your know-how. Conversely, men in your field can profit by the experiences of men in sales.

Packaging technicians are making a name for themselves in all industry. Products have even come to be named for the materials and type of packaging you provide. The impact of packaging is felt wherever you go.

Evaluating the Relative Cost of Packaging Materials and Methods—JOHN J. CLAREY, JR., assistant vice president, Bristol-Myers Co., New York. Packaging, obviously, is a very important part of product development, Mr. Clarey pointed out. New products, in this highly competitive era, demand the best possible packaging. So, all in all, packaging is a vital consideration to a coordinator of product development.

I would like to stress the subject we approach—the evaluation of packaging materials and methods from the standpoint of those who use—our consumers, those who sell—our trade and those who benefit—our stockholders and employees.

If we attempt to analyze what a consumer expects from a package, we find that the expectations are simple and practical.

The package should protect the product. In our own history, we have had several occasions when the package, instead of protecting the product, gave rise to its deterioration.

The package should be attractive at time of purchase and while in use. Many of us have been surprised to learn that women do not like to have cosmetics in tube form despite a functional advantage in use. The reason is undoubtedly because a tube in use becomes crumpled and unsightly.

The package should be as functional as practicable. To make a package functional usually involves increasing the cost of packaging materials. There have been a number of outstanding examples of manufacturers capitalizing on functional improvements in containers, particularly with the advent of the squeezable plastic bottle.

Stopette is a blow-molded polyethylene container with a plug spray head and closure of the same materials. It allows the user to spray the antiperspirant directly onto the underarm. This function, and its novelty as a package, has enabled Stopette to become a factor in the deodorant field. MODERN PACKAGING has reported that Stopette made its market debut in the summer of 1947. At the end of that calendar year, more than 400,000 bottles had been sold. In 1949 more than 5,000,000 bottles were sold and the plans announced by the company state that they expect to double this sale in 1950. This sales history is all the more interesting when it is considered that Stopette, because of its container, retails to the consumer at a premium price to competitive antiperspirants.

The substitution of a polyethylene bottle for a flint bottle, based on estimates we have made for certain of our products, indicates the following: The cost of polyethylene bottles is 240% greater than the cost of glass bottles. The finished cost of the product with polyethylene bottles is 60% greater than for glass bottles. However, there is a considerable saving in freight when polyethylene is substituted for glass, as plastic bottles average about 1/3 the weight of glass. Making allowance for freight savings, the finished cost of polyethylene compared to glass is 46% greater. In other words, if we were to insist on the same gross profit return to the company when substituting polyethylene containers for glass containers, we would have to raise our list price approximately 46%. To put

it another way, a consumer would have to pay 75 cents for a product in a polyethylene container versus 50 cents for glass.

The package should not be inconvenient to open or use. Cellophane-wrapped products often are difficult to open, as is shown by the widespread use of the rip-tape on cigarettes.

The retail price of the product, including package, must represent value. I think the law of compensation sets in when manufacturers seek to obtain too great an additional price for products because of packages.

We recently had an example of the reaction of consumers to value in packages with our product, Mum. We developed a plastic jar to replace our opal jar. We were pleasantly surprised to find that the cost of the plastic container was only a few mills greater per container than for opal. There was, however, a substantial saving in freight. Before adopting the package, we decided to consumer-test it. We found preference was for the opal jar and the principal reason given was that the plastic container seemed to hold less Mum.

In evaluating packaging policies from the standpoint of those who sell our products—wholesalers, chain and syndicate stores, retail druggists, etc.—we find in the case of the wholesaler that his interest in packaging is based primarily on how well it serves his convenience, method of selling and discount structure. Naturally, the wholesaler would prefer to sell his retail accounts the original sealed factory shipping case. This, of course, is not always possible. Therefore, he requires some smaller unit that is convenient and economical for him to handle and for his customer to buy. These smaller units are called shelf wraps or shelf packages.

Over the years, therefore, we have adopted the policy of making our shipping cases and shelf wraps of a size to fit in with the trade practices of our wholesale and retail trade. This has led to a series of reductions in quantities. Some years ago it was not unusual for us to have shipping cases as large as 1 gross and shelf wraps as large as 2 dozen. At the present time, however, with the exception of our tooth brushes, we do not have a shipping case containing in excess of 6 dozen and the majority of our shipping cases contain only 3 dozen.

We feel that we have accomplished several things by resizing our cases and wraps:

1. We have obtained greater cooperation and goodwill from our wholesalers.

2. We have made the handling of our merchandise from wholesaler to retailer less expensive.

3. It enables both our salesmen and the wholesalers' salesmen to trade up orders from retailers.

These reductions in shipping containers and shelf wraps have, in the long run, increased packaging costs. However, the company feels justified in accepting these increases because of the benefits gained.

By careful studies on the part of our production and engineering groups, we have been able, in recent years, to effect substantial savings in the finished cost of manufactured goods. One such example is Trushay, a hand lotion, which was introduced on the market within the last decade. It has had a very steady, satisfactory growth over the years. Recently, we changed from a semi-automatic to a fully automatic line which has reduced the number of girls from 14 to 8, has stepped up production from 480 doz. per hr. to 1,350 doz. per hr., with a consequent reduction in labor and overhead of about 50%.

From the Leeds Sales Co., Specialty Packaging Div., I have received the results of a study comparing the difference between packaging speed using pre-broken and unbroken scores on folding boxes. Tests have shown that by use of pre-broken scores an average increase of 25% is obtained in the setting up of the boxes, with a consequent increase in output of approximately 6% on finished, completely assembled packages.

I hope that by stressing the subjective approach to the evaluation of packaging materials and methods, I have not departed too far from the interests of the production manager or packaging engineer. In the last analysis, our interests and problems are basically alike.

MONDAY AFTERNOON

INCREASING PACKAGE EFFECTIVENESS AT THE RETAIL LEVEL— Panel discussion.

Chairman, JACK C. GRIFFIN, advertising and sales promotion coordinator, Consolidated Grocers Corp., Chicago.

Manufacturer—A. R. FARMER, advertising manager, Mercury Mills, Ltd., Hamilton, Ontario, Canada. The vast majority of Canadian textile and soft-goods manufacturers, Mr. Farmer reported, are taking a good look at their packaging programs to make quite sure that they are ready to do an even better job in the future for the retailer. Textiles are a low gross profit, high-volume business and to help keep sales at their present levels everything possible must be done to keep up with the changing trends in department and clothing stores.

More stores in the ready-to-wear field are rapidly being changed to the self-selection type. This has presented the manufacturer with a challenge which he must accept and which also throws an even greater load on the present style and type of packaging and in many cases calls for a completely new approach to the problem.

We have all become aware of the great increase in visible wrapping in clothing and department stores. The manufacturer who has put this type of program into effect has made a friend of the retailer and consumer alike. The retailer is able to make good use of the package as a point-of-sale display and the consumer has the assurance that clean, crisp merchandise will be obtained. The manufacturers who are not on this band-wagon yet had better hustle.

Another significant trend in soft-goods retailing has been the return of the re-use package and container, especially in the knitted-goods field. Special re-use containers have been highly successful in moving to market otherwise slow items. This has also increased unit sales by including two and three units in a package. Retailers report higher sales volume, especially during the four peak gift seasons—Easter, Mother's Day, Father's Day and Christmas. Most retail outlets agree that this type of package should not be too strongly identified with a particular gift season. The gift card can do this job for you.

Mercury Mills packaged their knitted shirts and shorts in a visible, but sealed acetate package. Acceptance at retailer level was at first excellent, but the customers insisted on peeking at the contents. After damaging the package they would then ask for another sealed pack to take home.

To overcome this, we introduced in 1948 a lithographed, open-end, gusset-type envelope; the original layout and color scheme were, of course, retained. This new package, when backed by an aggressive national-advertising campaign and window-display contest, moved our sales of shirts and shorts into undisputed leadership in the Canadian market, which only goes to prove that when we want to increase package effectiveness at the retail level let us not overlook or underestimate the wishes of the most important person—the one who pays the bill.

Package Design—EGMONT ARENS, president, Society of Industrial Designers, New York. The really smart boys are taking a new look at their packaging because that is advertising at the point of sale in a market which is moving more and more to self-service selling, Mr. Arens stated.

The art of color reproduction in the last few years has reached such perfection that pictures of merchandise have almost as much selling power as the merchandise itself. One after another of the label printers improved their techniques so that they could produce high-fidelity reproduction for the packaging field. The folding-box people have recently followed suit and you can now buy as high as 200-screen printed on board.

The suppliers in the packaging field now stand ready to put into your hands one of the most powerful selling tools that has ever been available in retail merchandising. These mouth-watering reproductions of foods that you see on the cans and boxes in supermarkets are undoubtedly getting the business.

The more pictures you print of delicious dishes that can be made with the contents of a package, the faster the package will sell. Not only the front of the package should have this super de luxe appetite appeal, but you can carry it all the way around the package to the sides and back, because women in self-service stores today often read the package on all four sides—the way they read the pages of the magazines.

What is true in the food field can also be applied to the soft-goods and hard-goods fields. Not only blankets, nylon stockings and shirts can be glamorously portrayed to stimulate impulse buying, but good reproduction of tools, automobile parts, etc., speed buying in the hardware field.

Packages themselves are being featured more and more, and larger and more prominently in magazines. You will notice that those packages which are being so featured are packages which have been recently redesigned. Two objectives dominated the redesign program. One was that these packages have probably in most cases been keyed for self-service selling; secondly, that they have been keyed for their impact on the advertising page. A good package designer today knows that if he can create a package which will stop traffic in a retail store, it will also command attention on an advertising page.

Many advertisers on TV have discovered that their packages failed to come across on the wavering screen. A good modern design fares much better and now that color TV is not far away, the telegraphic attributes of your package are important.

Many manufacturers have blown up their trademark at the expense of the vignette. A vignette can be given plenty of impact with the proper handling, even though reduced in size. The trick is to keep the color vignette as large as possible and to get trademark identity not by size, but by hitting power.

Informative labeling has been set forth in what I think is a rather dull and uninspired manner. It lacks glamour and sales appeal. There is no reason why the information about your product, in the informative label, cannot be a sales asset.

Creating the impulse to buy has a good deal deeper psychological and physical foundation than the average person realizes. Picture a woman in a super market and she has spent her budget for the week. She is about to check out and she sees a delicious chocolate cake right near the cash register. The chocolate icing was put on generously so that it runs down the sides of the cake and on to the wax paper where it is displayed. The lady looks at the cake and is tempted, but her strength of will wins out. She decides she can't buy. Then she takes the second look and notices where that extra gob of chocolate has run down over the wax paper. That does it. The lady remembers what happens when she bakes a cake at home. When the chocolate runs down over the wax paper, she usually breaks the chocolate off and pops it in her mouth to taste the icing. No sooner does the lady remember that, than her stomach starts working, her salivary glands water her mouth and her endocrine glands go into operation. Her whole body wants that cake. So the lady buys it.

That is appetite appeal.

Wholesaler—JOHN J. WEBER, district drug sales manager, McKesson & Robbins, Inc., Chicago. Due to the postwar upsurge in consumer purchasing power some packaged commodities have had greatness thrust upon them, Mr. Weber said. But the time is here when we can no longer depend upon accident; we must build by design, by planning and by improvement.

From a wholesaler's viewpoint, more manufacturers of packaged products distributing their merchandise through wholesalers are attempting to present their promotions to the wholesaler in a manner which will produce not only the widest dispersal of information regarding their products' use, their advertising, price schedule, point-of-sale display material, but the packaging as well. This emphasis on packaging as a wholesaler's salesman's talking point has increased with the growth of self service and an improved retailer knowledge of the yield per square foot of space.

Most wholesalers, at least in the drug industry, have six or

seven accepted methods of obtaining business from their retail customers. Four of these "selling approaches" affected by the style, color and over-all attraction of the package are: (1) Selling sheets or manufacturer brochures which are shown by wholesalers' salesmen to the retailer. (2) The wholesaler's sample program in which his salesman is given a prescribed number of samples each week to present to his customers. (3) Wholesalers' display rooms to which our retail customers pay one or two visits annually. (4) Point-of-sale display work which wholesalers do through special merchandisers or salesmen.

The drug field is replete with examples of strides made through more intelligent packaging. We are today able to furnish the consumer his physician's prescription in a Duraglass container which is smart and professional in appearance, moisture tight, made of an inactive material, with full contents visible and at a few pennies' cost.

In 1948 Bauer & Black introduced their Lustric First Aid Kit (a visible plastic model) and over night enjoyed a three to one sales over the combined total of five others in their line.

This same manufacturer provides an interesting lesson on what can be done to achieve a necessary price increase on a long-established item through more intelligent packaging. Their "Cotton Picker" was recently restyled to include a plastic dish for use with the now popular home permanent wave kits. Sales increased 25%, the consumer was given an extra value and a necessary price increase was met.

In the drug field we are talking less and less about show cases and more and more about sell cases. "Self service, a consumer buying method" has become "Self service, a consumer buying habit." More retailers are treating their customers as "eye-minded" buyers.

Store Layout—DONALD DESKEY, *Donald Deskey Associates, New York*. A vast number of manufacturers are making a multiplicity of products for distribution to the consumer through a great variety of retail outlets, Mr. Deskey said. The manufacturer wants the consumer to buy his products. The retailer eagerly seeks those products which sell to the consumer at the longest profit, the most rapid turnover and at sufficiently low cost to enable him to sell successfully against competition.

It is obvious that the problem of store planning, except in the case of the manufacturers' own retail outlets, is an internal thing—under the jurisdiction of the executives in charge of store planning. The objective in store planning of the retailer is the most effective display of products that would bring about maximum retail sales at the lowest sales cost.

The problem of the product manufacturer is to gain as large and as important a space for the display of his products as he can and to show them to better advantage than competition; he attempts to do this in most cases by distinctive packaging, the only element over which he has any direct control. However, there may be possible devices in which the package and a point-of-sale device might well be considered as a dual problem that would work more effectively for the retailer in speeding up profitable sales and it is here that the manufacturer should concentrate his investigations.

Retail outlets vary from large supermarkets, independent and chain, through variety stores, drug stores, etc., but one common denominator occurs: a trend of toward self service. The decline in personal salesmanship puts the burden of selling in retail outlets on the package and the point-of-sale presentation material.

Architecture is a point-of-sale device. Traffic flow, lighting and fixtures are becoming increasingly more important in aiding self selection and speeding up sales.

However, many times packaging, point-of-sale and architectural planning are not adequately integrated. The package burdened with excess informative labeling loses its effectiveness. The point-of-sale device is many times conceived as a supplementary element and represents hope on the part of the manufacturer that his product will get prominent display.

There is a trend toward one-store shopping. The supermarket is expanding into cosmetics, drugs, housewares, hard-

ware and motor oils. The drugstore with its diversity of merchandise, is a source of wonder to the European visitors. The variety chain competes with grocery and drug chains.

Standardization of layout, shelf and bin sizes is under way and modular all-purpose fixtures are being planned for mass production that allow for low-cost, speedy installation of store interiors as well as for flexibility to change and demountability.

Every square foot and square inch of space must work for the retailer. Every packaged product must produce dollar volume for the space allotted or give way to more profitable items with quicker turnover.

The point-of-sale device, too often thought of as "display or counter cartons, easels, cut-outs, merchandisers or selector units," must be planned in collaboration with those in charge of store planning. Provision should be made in planning the store for the efficient use of these dealer helps.

In my opinion, one of the areas of investigation which would prove most fruitful to retailer and manufacturer alike and one that would conceivably increase package effectiveness at the retail level would be a thorough study of point-of-sale devices acceptable to the increasing number of super-stores responsible for the distribution of consumer packaged products.

Promotion—O. M. GALE, *associate manager, public relations division, Procter & Gamble Co., Cincinnati, Ohio*. In designing a package nearly every astute manufacturer will use a great deal of care in selecting a color and design to give his package high display value, Mr. Gale stated. All too often, however, the manufacturer forgets that customers will be made or lost when the product is put to use and that the package has a very important role to play in developing satisfied customers who come back to buy again.

The successful manufacturer makes certain that his product is packaged not only in a way which will make it attractive to the woman, but also in a way which will make it easy and pleasant for her to use.

There may be excellent reasons, from a design and manufacturing point, why a particular liquid should be packed in a tall thin bottle. Perhaps it fits existing filling equipment in the plant; perhaps it permits a label with room enough for all the things the manufacturer would like to put on it; obviously also its very height gives it greater visibility and display in the store. But just let that bottle tip over once or twice and the customer is lost forever.

It is really surprising how many packages one can find which are liberally covered with display devices and selling messages, but which make no attempt whatever to tell the consumer how to use the product to the best advantage. For example, coffee is a common-place commodity, yet it is no secret that a discouragingly large percentage of housewives don't know how to make a good cup of coffee. If you examine all the coffee labels in a large market, you will find less than half which make any attempt to offer practical helpful suggestions for brewing this beverage.

Recipes are frequently put on packages to tell the homemaker how to use the product to best advantage and also to teach her new uses. The corn-flakes package tells you how to make corn-flake macaroons and thus use up the contents a little faster. Famous Chocolate Wafers tell you how to make refrigerator cake; by doing so you not only get a very satisfying dessert, but you also find you have used up the whole can of crackers in one meal and are ready for more.

All of these considerations and many others add up to the point that unless the package makes a real contribution toward convenience of use and toward delivering satisfied customers, it is not doing all it can do to promote sales. A purchaser may be made in the store; a customer is made in the home.

TUESDAY MORNING

HOW GENERAL ELECTRIC TACKLES ITS PACKAGING, PACKING AND SHIPPING PROBLEMS—(Entire session presented by General Electric Co. personnel.) *Chairman, F. G. MOLONEY, manufactur-*

ing policy division, Schenectady, N. Y. The General Electric Co. has many packaging problems due to the large number and greatly varied types of products made in the many plants. Mr. Moloney said, all of which have to be packed, packaged and shipped. We make products that weigh less than 2 oz. and turbines that weigh as much as 350,000 lbs. Cost of packing varies from a fraction of a cent to many thousand dollars for a single product. Company-wide, we spend annually from \$35-40 million in packaging, packing and shipping.

In all departments, our work force, suppliers and customers are members of our packaging team, assisting us to obtain the best possible value to ourselves and our customers.

On inter-plant shipments, we have found that what might be a packaging problem on one end may create a material-handling problem on the other end. We are also evaluating our vendors' packaging through our laboratory and with the aid of the purchasing department. This program on the packaging of vendors' supplies opens up a vast area of cost reduction that we are tapping and will continue to tap. We are also striving for more standardization of design in our repetitive, mass-produced products so we can make more use of mechanical packaging equipment.

Industry today is giving much more thought to palletizing. We are palletizing our outgoing shipments wherever possible to our other plants, warehouses and customers, and requesting that many of our incoming shipments be palletized. There have been a number of special pallets designed, resulting in a savings of both material and labor.

We are now in the process of setting up a new program to centralize research on packaging and material handling to eliminate duplications and as a source for keeping all departments and divisions informed on the latest in packaging and material handling. They would conduct research and issue specifications for standard test procedures and design on paper, corrugated, molded pulp, wood, wirebound, etc.

Purchasing Packaging Materials—G. F. SIMMONS, *central purchasing division, Schenectady, N. Y.* Picture a freight train 75 miles long, or extending from Chicago to Elkhart, Ind., filled with packing materials—\$8,000,000 worth of lumber and wooden boxes—\$10,000,000 of corrugated containers and filler pieces and \$2,000,000 worth of paper products. This would represent General Electric's annual purchases of packing materials, bought at one central location for 115 plants located in 88 cities in 22 states. The purchasing agents responsible for the buying of this merchandise must be specialists.

While these annual purchases are for a large company, the same responsibilities hold true for a smaller company.

Our purchasing agent of lumber, as an example, found that there was a likely possibility of using a thinner type of board than that being used. He suggested the rewriting of our specifications on lumber to call for $1\frac{1}{8}$ -in. board rather than a $1\frac{3}{8}$ -in. board. At the same time, this investigation seemed to lead naturally into another aspect—the possibility of substituting spruce for yellow pine. Both suggestions were accepted and in the case of spruce, made it possible to develop sources of supply in the Adirondacks, New England and Canadian areas, rather than ship from the south. The size reduction accounted for an estimated yearly savings of one-half million dollars, plus the weight savings in transportation of incoming and outgoing material of \$200,000.

For years we had used plywood and cleated corrugated in the shipping of our refrigerators. Our purchasing agent of corrugated material finally gave particular consideration to the all-corrugated box. With the help of our packaging designer and our vendors, such a box was developed. It is now being used 100% on our assembly line, with an estimated annual savings of three quarters of a million dollars.

Our purchasing contracts are let on a six or 12 months period—in some cases "hand to mouth"—depending on market conditions. Our central purchasing group is responsible for the purchasing of materials common to all factories. Most of these consist of raw materials, while the items special to each

factory are purchased locally. Upon completion of contracts negotiated by the central purchasing division, notifications are sent to our various factories, advising the sources with whom we have contracts, of their prices, length of contract and other pertinent information. The contracts are reviewed every six months. When a vendor is selected, an effort is made to have our packaging engineers and other interested persons go over the packaged product in order to have the best method and material possible at the best price.

Transportation, as we all know, is one of the most important problems of today in all types of business. Our traffic department, which serves under the direction of our vice president in charge of purchasing and traffic, has appointed a committee to study our transportation problems. General Electric's transportation bill amounts to almost \$60,000,000 per year. Preliminary facts obtained by this committee indicate that 5%, or \$3,000,000, can be saved without any effect on service.

Cushioning Materials—A. M. UNDERHILL, *shipping superintendent, West Lynn, Mass.* (Mr. Underhill's talk, which was devoted principally to the evaluation of cushioning materials, consisted largely of the presentation of charts and similar material used in this work. He also supplied various formulas by means of which impact requirements of cushioning materials may be evaluated and the use of such devices as the G-meter. The speaker recommended the services of qualified testing laboratories for companies which were not themselves equipped to conduct work of this kind. Mr. Underhill also stated that on many articles shipped, General Electric has determined specific "G values" as a guide to cushioning and packing.)

Case Histories of Improvement, Small Apparatus—PAUL O. VOGT, *packaging engineer, small apparatus division, Schenectady, N. Y.* Each G. E. plant has men trained in packaging techniques; in smaller plants, this function is performed by the shipping department superintendent, Mr. Vogt stated. G. E.'s packaging development laboratory attempts to keep all plants up to date on new developments. Ease in packaging, distribution and standardization are three of the principal factors considered.

A streamlined transformer tube supplies a typical example of packaging improvement by G. E. The old pack contained six pieces of corrugated board. We changed over to a one-piece container, folded to lock around the unit, realizing a 25% saving in material cost. On porcelain electrical cut-outs, the former container involved six separate pieces, while the new package is of one-piece construction. This change brought an 8% reduction in material cost and 50% reduction in labor. Under the new program, one size of packing piece and one carton can be used to package eight different cut-outs.

Mr. Vogt presented case histories showing similar savings accomplished in the packaging of electrical range timers, globe reflectors and assemblies, grid resistors and transformers. He also explained their methods of warehousing of expendable pallets.

Case Histories of Improvement, Light Products—R. B. ALDRICH, *packaging engineer, Telechron, Inc., Ashland, Mass.* Several years ago, Telechron, Inc., manufacturers of electric household clocks, commercial clocks, industrial timing devices and motors, initiated a packaging standardization program. He explained how an inventory of some 54 different clock cartons and their component filler parts was reduced so that a total of 29 filler inserts made possible the packaging of 52 different clock models in just three unit and master-carton sizes, entailing more than 96% of the total clock production and resulting in a 20 to 30% total annual packaging-material and labor-cost saving.

Monowatt, Inc., manufacturer of household wiring devices, cord sets and electrical specialties, has recently redesigned all packaging to attain several very worth-while advantages. Unit displays were developed which would serve not only as an

attractive individual merchandising display at the point of sale, but also as a protective medium for shipment.

No other General Electric affiliate can match the packaging problems confronted by G. E. X-Ray of Milwaukee, manufacturers of X-ray apparatus for medical, dental and industrial uses, electromedical apparatus, X-ray tubes, X-ray and electromedical supplies and accessories. The tube lengths vary anywhere from 3 1/2 in. to approximately 8 ft. Retail prices vary from \$50 to \$10,000 per tube. Normally, X-ray tubes are packaged in wood crates. However, a corrugated cardboard container has recently been devised for internal shipments resulting in savings as high as 90%.

In our *Plastics Div.*, Canada Dry fountain dispensers formerly required individual packing for the metal and plastic components. A 40% saving has been effected in material and labor by combining these parts in a single corrugated carton.

Case Histories of Improvement, Heavy Products—H. J. BENZIE, production manager, appliance and merchandising division, Bridgeport, Conn. In a consumer-goods business such as ours, distribution is necessarily accomplished through distributors or wholesalers and dealers, and it becomes increasingly important to consider the needs of our customers in developing our packing, not only for the security of the product itself in transportation, but for the subsequent handling by our customers. Consequently, we work closely with them in our packing design and materials handling, to be sure to offer them every advantage. In the development of a new product, or a major change in an existing product, we establish a pre-production timetable, one element of which involves packing design, and which must be satisfied from the standpoint of packing design, materials handling as it applies to that particular manufacturing unit, our customers' needs and the carriers' contribution and responsibility.

Mr. Benzie explained improvements in packaging of toasters that resulted in reducing costs from 15 1/2 to 9 1/2 cents, or 39% each. New methods for the packaging of dishwasher tubs and baskets were also described, as were loading and palletizing that resulted in extensive savings.

TUESDAY AFTERNOON

REDUCTION OF LOSS AND DAMAGE IN SHIPPING—Chairman, WILLIAM H. CLAY, *Swift & Co., Chicago.*

Loss Reduction Through Modern Techniques of Carloading and Bracing—EDWARD J. DAHILL, chief engineer, *Freight Loading & Container Section, Assn. of American Railroads, Chicago.* There are a few simple premises which should be understood with regard to carloading and bracing, Mr. Dahill told Conference members, for on them actual practices are based. They are: (1) the box car is a large shipping container on wheels, running on a steel tract and should be viewed in this light; (2) while in movement, a car has three motions (crosswise, vertical and lengthwise), as does the load therein, and good carloading and bracing provides means to meet these normal movements; (3) the same principles applying to the proper packing of an article in a shipping container apply to stowing, bracing and blocking of containers and articles in a car, namely, the obtaining of a tight load, with all slack space taken up or properly compensated for; (4) the fewer separate movable units in the load, the less probability there is of damage.

Each road has its own ideas as to the design and appliances of their own cars, usually influenced by the general type of freight they handle in large volume and by the characteristics of their lines. All box cars must, within reason, be capable of being moved over any railroad to any destination. For carload freight, the railroads perform only the hauling; with l.c.l. freight, the roads do the loading, transferring and unloading. This distinction must be borne in mind in considering how time, labor and materials may be saved and loss and damage reduced.

Railroads have now standardized the inside dimensions of

their cars and as new cars are constructed they are being built to the following dimensions: length of standard cars, 40 ft. 6 in. and 50 ft. 6 in.; width for both lengths, 9 ft. 2 in.; height at the door, 9 ft. 10 3/4 in. Door widths vary, being 6 ft., 7 ft. and 8 ft. for single doors and 12 to 15 ft. for double doors.

If all shipping containers were of a uniform size, there would not be great difficulty in arranging standard stowing patterns. In solid carloads, the problem is simpler than in l.c.l. freight or mixed carloads. It is here that experience and ingenuity come to the fore in proper packaging.

According to the characteristics, size, shape and condition of goods, shipments may be loaded: (a) Solidly from end to end, taking up slack space by lumber, fibre or other filling material. (b) From each end of the car to the doorway, with a center gate bearing against the load in each end. (c) By anchoring the load in each end of the car, using metal ties fastened to the car walls by plates, with ties tensioned and sealed. (d) By the "floating" method, which has three variations: full floating, semi-floating and snubbed. In the full-floating method, containers are tied together by metal ties into one or two large units and a 12- to 24-in. space left between the end of the car and the unit and a space left between the units at the doorway. In the semi-floating method, the units are loaded against the ends of the car and an open space left at the doorway. The snubbing method utilizes the floating-load idea with the use of anti-skid plates, lag screws or special plates fastened to the floor to restrict lengthwise movement of the load. This method has been successful and merits consideration in the shipment of machinery and other bulky articles.

In the first three rigid-braced methods, the effort is, in effect, to make the load an integral part of the car; with the floating methods, the object is first to tie the many small units into one or more large units and allow these large units to move lengthwise of the car.

How to apply blocking and bracing is clearly described and illustrated in Pamphlet No. 14 of the Freight Loading & Container Section, AAR. Mr. Dahill stated that copies of this booklet may be obtained upon request to the association. It shows all types of wooden braces and how to adopt them according to the circumstances and the character of the lading.

The secret of good loading, Mr. Dahill stressed, is tight stowing. Unfortunately, this is not always accomplished. The "bonded block" method of loading for uniform loads, as well as the "key sack" or "brick wall" method for bagged commodities were recommended by Mr. Dahill.

Two new ideas of unitizing or bonding a load together are currently being used. One is the use of an adhesive placed on the containers in narrow strips as they roll on a conveyor into the car. An adhesive with a high shear value and low tensile strength applied in narrow lines is necessary. There has been objection to this method on the ground that it is difficult to unload when boxes stick together, but the big point is that the goods are undamaged. The other idea is the "retaining paper" method. Here the end stacks of containers are partly wrapped in sheets of strong reinforced paper. The weight of the load and friction within the load keep the paper from slipping. The end stacks are bound together in a unit, the top end boxes are held down and, should the load shift, these top end boxes do not fall. This method is working successfully in loads of liquor, beer and wine, and it is readily adaptable to many other commodities.

Some years ago the idea of using skids, particularly for transporting sheet paper used in the printing trade, was introduced. They were found to be very effective and economical, and reduced loss and damage materially.

One of the most important developments during the war, with the shortage of manpower, was the pallet. Mr. Dahill distinguished between a skid, composed of a single platform mounted on two relatively high runners or posts, and a pallet, consisting of two platforms attached to runners or posts with

a space not exceeding 4 in. between the two platforms. Having a double-faced top and bottom, a pallet load could be placed on top of another loaded pallet, whereas a loaded skid having the weight pressure concentrated along two narrow runners might easily damage the load beneath it. Usually a pallet is of lighter construction than a skid. It takes up less vertical space and it can be easily handled.

Two years ago the Department of Commerce took up the subject of endeavoring to standardize the size of pallets. There were several thoughts back of this idea: the possibility of permitting an interchange of pallets, reduction of pallet cost, as well as the possibility of planning warehouses to utilize floor space to the best advantage with the standardized equipment. Out of this endeavor, two recommended sizes of pallets have been put forward: 40 by 48 of the four-way type having a capacity of about 3,000 lbs. and a 40 by 32 four-way with a 2,000-lb. capacity. In the usual freight car, the 40 by 48 pallets could be loaded with two abreast through the car with a minimum of slack and wasted floor space.

Many individual railroads are experimenting with various types of unit containers. Some of these are the glass-lined tanks for milk; alumina containers measuring 8 by 8 by 20 ft. with a capacity of 20,000 lbs. and 1,000 cu. ft. of space; a unit container for I.C.L. freight measuring 42 in. wide by 45 in. long by 6 ft. high, weighing about 320 lbs., with a load limit of 3,500 lbs. All of these innovations save time, eliminate many handlings and reduce loss and damage.

A recent report states that 483 stations and transfers are equipped with power devices, with capacities of from 2,000 to 6,000 lbs., to handle unit loads. Thirty express terminals are also so equipped. Each road is making careful studies of the kind and size of pallets or containers which best fit its needs, the type of power equipment that can be used efficiently according to the physical layout of the station and carefully examining all costs.

One road has equipped cars with permanent swinging gates which divide the car into 4-ft. cubicles horizontally and vertically. Another has equipped cars with permanent wall anchors to which metal straps and wires can be attached. Practically all are using partition and bulkhead gates to divide I.C.L. loads.

The job of reducing loss and damage, Mr. Dahill concluded, should be a joint effort, for it cannot be accomplished by the manufacturers, or the receivers, or the carriers alone. The railroads are working diligently now. They earnestly desire your help and will cooperate with you.

Advanced Packing Practices for Shipment By Truck—WILLIAM L. YINGLING, *National Classification Board, American Trucking Assn., Inc., Washington, D. C.* In 1935, according to the Bureau of Public Roads, U. S. Dept. of Commerce, we had a total of 331,867 miles of paved highway. The latest published figures indicate we now have 337,020 miles—a gain of 5,153 miles.

In 1935, the year of the establishment of the Motor Carrier Act, there were approximately 3,565,000 trucks, while today there are about 7,600,000. None of us can believe that an increase of 5,000 miles of highway over a 15-year period would be the basis for a 108% increase in the number of motor-freight vehicles operated. Trucks paid an estimated \$310,000,000 in taxes in 1935, while latest estimates indicate they are now paying \$1,088,000,000. There must be an increase in the use of trucks to bear such taxation and stay in business.

The real reasons for the increase in truck transportation, according to Mr. Yingling, are: (1) Service based on the needs of commerce and industry. (2) Expedition because of the ability of trucks to move freight when it is ready to be moved without waiting for scheduled departures. (3) Flexibility in choice of highway routes. (4) Economy because shipment by truck is generally the low-cost method of transport. (5) Safe transit has contributed to the use of trucks.

But the belief that trucks can safely carry packages which would not be acceptable by others is so prevalent that too

often the shipper becomes careless or cuts his packing costs to the point where the package is wholly inefficient.

The National Classification Board has been reluctant to publish packing specifications in the National Motor Freight Classifications for several reasons. First, we know that generally motor carriers can safely transport merchandise freight in containers which could not possibly hold up under general transportation shocks and hazards. Second, we want to believe that every shipper wants his goods delivered undamaged and will package his freight accordingly. Third, practically every shipment, regardless of mode of transport, either begins or ends by truck and to publish specifications different from those enforced by other agencies would result in confusion.

One primary consideration that should be accorded all packaging is whether it will permit the stowing of other freight of equal or of somewhat greater density upon the package. We know of no formula that can be applied to the condition, since the amount of weight it must be able to bear will depend upon the dimensions of the package.

A good shipping container is not good enough. It must be supplemented with internal packing devices properly utilized. Too often reliance is placed on the use of a good package and ingenious internal packing only to find that the article itself will not hold up under normal hazards of transportation. Package tests should not be restricted to the container; successful container tests should be followed by tests of the packaged product.

Mr. Yingling cautioned against the excessive use of the familiar labels, "Fragile, handle with care," "This side up," etc. While these labels often help a lot and must be used, they frequently are used as a substitute for good packaging. He also suggested that advertising imprinting on shipping cases might best be eliminated in the interest of preventing pilferage and loss. Such advertising is of considerable worth, however, in relation to merchandise requiring special handling, stowing or protective service.

Don't design a weak shipping package with the thought in mind that only trucks can handle it safely. Design your shipping containers to withstand normal hazards encountered in other forms of surface transportation and be secure in the knowledge that the trucks can handle them safely.

Practical Developments in Packaging For Export—FRANK W. GREEN, *industrial packaging consultant, Springfield, Mass.* During the past four years there has been much talk about export packaging. The carriers, shippers, contract packers and container manufacturers have all been blamed. This led to a meeting at the Maritime Exchange in New York attended by several hundred exporters, suppliers, carriers, marine underwriters and others interested in packaging. A committee was formed to find out and recommend what course could be taken cooperatively to correct the causes of the losses.

The committee approached the problem in miniature. The cargo of 20 outbound vessels of 19 companies plying 11 trade routes to all parts of the world were included. This is a good-sized sample involving many thousand shipments with every type of package.

The vast majority of exporters were doing or trying to do a good job of export packaging, but many were obviously in doubt about the best methods. From the beginning it was obvious that every recognized type of container was doing a good export job when used correctly to meet known conditions. It follows, however, that export trade with the many handlings involved requires more rugged packaging than can be satisfactorily used for domestic shipments.

The most serious condition is the unloading of trucks at the piers. This is the obligation of the shipper or his agent. Few packages are actually broken at this point, but a great many are so seriously weakened that further handling will result in failure. It is in the interest of the shippers to make certain that qualified truckmen are engaged and that trucks employed are adequately manned and equipped. Although the exception, some things happen on the piers which contribute further

to the weakening and failure of export shipments. Heavy wooden boxes may be placed on top of corrugated cartons; light cartons used to support heavier ones; poorly formed pallet loads, etc. However, these things are not as general as you might have heard. Stevedores generally exercise much greater care in the hold than is usually believed.

The most common point of failure is at the closures. A poor closure invites pilferage, will not resist strain and weather.

The interior packaging must be adequate and suitable to all the hazards of export trade. Many commodities break loose inside the packages and do more damage to the containers than could be done by handling.

Compression strength is extremely important. Packages are often stacked 12 or 15 ft. high on piers, exposed to salt fogs and other weakening conditions.

Pilferage prevention is also a key to success. Most pilfering is invited by improper or inadequate export packaging.

Specifically the commodities which appear inadequately packed more frequently than others are: textiles (piece goods and finished products), automotive parts glassware and foods. As these are all large-volume items, the packaging shows up more than might otherwise be the case.

Although a few items can be exported safely in their domestic packages, most commodities require carefully planned and coordinated export packaging. Only this way can the shipper have both adequate and economical packaging. In export trade, package engineering meets a worthy challenge.

WEDNESDAY MORNING

New Uses For Plastics in Packaging—Chairman, DOUGLAS KIRK, mechanical research department, The Quaker Oats Co., Akron, Ohio.

Use of Polyethylene As a Paper Coating—L. M. BURGESS, H. P. Smith Paper Co., Chicago. Imperial Chemical Industries in England, Mr. Burgess said, which did the pioneer development work on polyethylene and produced its first commercial quantities of the material in September, 1939, was first to investigate hot-melt polyethylene coatings.

A thermoplastic coating should have the following properties, most of which are fulfilled by polyethylene-coated paper: Water, water-vapor and grease resistance; non-toxicity; tasteless and odorless characteristics; plasticizer retention; resistance to creasing and fibre rupture; heat-sealing properties; freedom from blocking; controlled surface friction; adhesion; gas resistance; low-temperature flexibility; controlled coating weights; good aging characteristics; ready availability and relatively low cost.

Polyethylene-coated paper resists penetration of liquid water almost indefinitely. Water-vapor transmission rate is inversely proportional to film thickness. At a temperature of 100 deg. F. and 95% relative humidity, coatings 1-mil thick have a transmission rate of 1 g./100 sq. in./24 hrs. The rate is much slower at normal temperatures and very slow at zero.

Polyethylene-coated paper is odorless, tasteless and non-toxic. Whereas most plastic coatings require a plasticizer or softener to produce the desired flexibility and smoothness, polyethylene is in itself a very flexible material and is thus ideal in this respect.

Polyethylene is not very resistant to transmission of gases such as carbon dioxide and oxygen. There is little doubt that the type of backing sheet will greatly affect these rates.

Polyethylene coatings show no evidence of rupture under severe creasing and wrinkling. Sheets coated with 1 1/2 to 2 mils of polyethylene remain virtually pinhole-free after creasing. Water-vapor transmission rates and adhesion of the polyethylene to the paper are not impaired.

A thermoplastic coating is of little value unless the weight of coating can be controlled. Polyethylene, Mr. Burgess declared, can be coated without difficulty in thicknesses for 1/2 mil to 10 mils. Where the coating is to be used only for clean-

liness and sanitary reasons, or where the end use requires only a fibre-free sheet, minimum coatings are indicated for reasons of economy. Since polyethylene requires no plasticizer and resists oxidation, long storage periods cause no embrittlement, discoloration or loss of heat-sealing characteristics.

While the bond between the polyethylene coating and paper appears to be solely mechanical, adhesion is satisfactory.

With proper attention to temperature, pressure and dwell time, polyethylene-coated paper can be heat sealed on most types of equipment. These factors are varied according to type of coating, thickness of paper and machine speed. Sealing methods used may be either intermittent (at a temperature of 275-280 deg. F. and 15 to 20 p.s.i. pressure), or continuous. Either method will produce seals capable of withstanding boiling water. Experiments on a pilot machine indicate that continuous seals may be made at temperatures of 325-350 deg. F. and web speeds approximating 40 ft. per minute. If cooled, the seal rapidly gains strength.

Tailoring of the coated sheet to the specific end-use requirement remains an unsolved problem; confused thinking has led to the sale of coated sheets with little regard to end use. For example, resins for molding, chemicals such as ammonium nitrate and other fertilizers that are corrosive to paper and stick compounds such as glue require only a film sufficient to cover the fibre for their protection. In fields where the material is both hygroscopic and corrosive, film thickness would depend on degree of moisture protection required. An example is the development of a package for U. S. Tobacco Co. where it was much more economical to obtain a low water-vapor transmission rate by combining a polyethylene-coated paper to foil. To have applied sufficient polyethylene to the paper to meet this end use would have been entirely out of reason from a cost standpoint. In this case, the polyethylene sealed the fibre and prevented wicking of moisture, while the foil afforded moisture-vaporproof properties and the necessary folding characteristics for a good packaging-machine operation.

Polyethylene-coated board has led to new packaging uses for fibre drums, where cleanliness, moisture protection and non-reactivity with the packaged material are desired. A host of miscellaneous items such as rubber interleaving papers, chocolate drop sheets, crown spots, freezer wraps, shelf liners and locker paper find polyethylene-coated paper the solution of many problems.

Polyethylene-coated paper is a relatively new packaging material and opens new fields for those interested in packaging new materials in containers heretofore only dreamed about. Do not use this material as a substitute or simply because it is plastic coated, but for its unusual properties and the protection it will give the packaged material.

The ability to coat polyethylene in thin films onto paper by the so-called hot-melt or hot-laminating method was the impetus that made multiwall bags lined with polyethylene the largest single use for this coated paper. Paper coated with polyethylene is upgraded in tensile and tearing strength about 10 to 15%. However, actual drop tests have proved that a polyethylene-lined multiwall bag is considerably stronger than an unlined bag of the same number of plies. Such bags have opened new fields and such products as ammonium nitrate, fertilizer, glue, meat and ionic exchange resins have built this use up to 500,000 lbs. per month. The bags are glued along the side seam with rubber dispersions and the ends sewn and taped. For greater water resistance, the ends may be wax dipped.

Protective Packaging With Molten Thermoplastics—WILLIAM RABAE, chemist, Western Regional Research Laboratory, U. S. Dept. of Agriculture, Albany, Calif. Virtually all things that live and grow have natural protective surfaces. Thus nature supplied the inspiration for dip coating of various foods and other products. Paraffin coatings for cheese are an example which has been known for many years. During World War II, further experimentation was carried out to meet unusual packaging problems. As a result of this work, various types of

thermoplastic coatings were widely used for certain types of equipment as well as some food products.

Owing to variations in chemical and physical characteristics, thermoplastic materials vary in their protective effects. For example, refined paraffin is a very effective moisture barrier at ordinary temperatures, but at low temperatures it becomes brittle, cracks and loses its effectiveness under normal conditions of handling and shipping. However, the low-melting-point, soft microcrystalline paraffins show excellent low-temperature flexibility and are equally effective as moisture barriers. Their flexibility is improved with plasticizing agents.

These modified soft microcrystalline paraffins have been found to possess other unusual low-temperature-adhesion and expansion characteristics which make them suitable for the dip coating of frozen commodities *per se*, such as frozen poultry or meat, or of the packages containing frozen foods.

It appears that the use of thermoplastic dip coatings for frozen foods dates back to 1941, when I began preliminary experiments to determine the practicality of this method. A general statement on the results of this work was published in 1942 and this report was presented at the national meeting of the Institute of Food Technologists in June, 1942.

This work was in part instigated by the knowledge that heat-sealing operations of protective sheet materials often caused a change in the characteristics of many widely utilized coatings, resulting in the impairment of efficiency at the point of sealing. It was reasoned that if a water-vapor and air-resistant thermoplastic material could be utilized as a dip coating, the weaknesses inherent in heat sealing could be eliminated. Preliminary experiments with refined paraffin met with favorable results, but it was found that cracking nullified the protection of this material at temperatures below 20 deg. F.

The soft microcrystalline paraffins were found to supply a base material sufficiently flexible to resist cracking under these conditions. Due to comparatively low melting points, these hydrocarbons are "tacky" at 70 deg. F. or above. However, at temperatures below 32 deg. F. they become tough and firm and the tackiness recedes in proportion to the depression in temperature. Undue tackiness is also easily prevented by spraying the dip-coated item under controlled conditions, with a thin coating of clear lacquer, which also serves to enhance the finish and appearance. When mixed in correct proportions with certain compatible modifying compounds previously mentioned, the resulting blends have general characteristics which are satisfactory over a wide range of temperature. They meet the requirements for food products in that they are non-toxic, insoluble and have no taste or odor. The attractiveness of hydrocarbon coatings such as these may be materially increased by coloring the melt with oil-soluble permitted food dyes. This feature is valuable for identification or trademark purposes and in no way impairs the functional value of the coating.

Brittleness of coatings, being a major pitfall at lower temperatures, must be specifically evaluated. While many laboratory tests have been devised to determine relative flexibilities of materials, a practical method such as the impact or drop test is a convenient and reliable way of testing this characteristic. Drop tests used by the Western Regional Research Laboratory on packages of dehydrated foods at zero deg. F. showed the superiority of the microcrystalline coatings over commercially available paraffin coatings.

Since continuity of the surface film is more important than thickness of coating, it was found advantageous to strive for thin coverings. Coating thickness may be regulated by, first, the temperature of the molten thermoplastic; second, the timing of the "dwell" of the dip and, third, by repetitive immersions. A dipping temperature maintained at 15 deg. F. above the melting point of the thermoplastic usually results in the deposition of a suitable uniformly thin film after immersion for one second. Should bare spots remain, a second dip may be necessary. Coatings over 2 mm. thick (0.0078 in.) are undesirable because of decreased flexibility and unjustified increase of the cost factor. In the absence of "bare" spots, coatings 0.5 mm.

in thickness provided effective water-vapor and gas resistance.

Coatings are easily removed from the dip-coated items by peeling or "stripping." In the case of frozen commodities, slight thawing develops a film of water between the coating and the frozen material, enabling easy removal of the coating.

Mechanization is an important factor which must be given careful consideration if the package is to be utilized by industry. During the war, the armed forces used a type of dipping mechanism which involved the passage of the containers or commodities through a molten bath of the thermoplastic on a chain. A more recent proposal has been the use of a type of equipment used in the confectionery and allied industries, which is known as an "enrober," so named because the commodity to be coated is "enrobed" by a molten sheet of the coating applied through a slot from above a moving belt. With the enrober, thickness and evenness of the coating may be regulated by blasts of hot air and hardening may be expedited by passage through a refrigerated cooling tunnel.

A recently completed packaging study carried out at the Western Regional Research Laboratory permitted accurate evaluation of dip-coated paperboard containers in connection with the packaging of frozen foods. The containers were of the end-opening type having a capacity of 12 ounces. After filling with frozen peas, the end flaps were anchored with microcrystalline paraffin. The closed cartons were then hand dipped in a paraffin-base thermoplastic under controlled conditions, resulting in the deposition of a reasonably uniform surface coating $1\frac{1}{2}$ to 2 mm. thick. These containers were then stored in dry circulating air at 15 deg. and zero deg. F. in specially designed sealed cabinets. Only insignificant weight losses occurred over a two-year storage period at either temperature, indicating the efficiency of this type of barrier. Further corroboration of this protection was verified by standardized taste-panel tests.

While this presentation has been more or less confined to the hydrocarbon type of thermoplastic, it should be emphasized that this is only one of many types which are amenable to the dip-coating procedure. Any thermoplastic compound having protective chemical and physical characteristics which meet the requirements of any specific product may be utilized.

Therefore, it is of prime importance that the type of thermoplastic coating selected for a given commodity be tailored to the requirements of that product. The possibilities are legion. Only the surface has been scratched in this new but promising field of protective packaging.

New Uses of Hydrocarbon Plastics for Packaging—RAYMOND G. NEWBERG, chemical division, Standard Oil Development Co., Linden, N. J. It is now evident that no one plastic provides the complete answer to the wide demands made of the new plastic films. Polyethylene, one of the most interesting and perhaps most versatile plastics, has many good qualities to recommend it for a number of packaging applications. However, it has limitations which preclude its use for many applications. One purpose of this paper is to discuss investigations which demonstrate that the versatility of polyethylene can be increased by blending it with polyisobutylene.*

A number of years ago, chemists at the Standard Oil Development Co. laboratories produced a new copolymer of styrene and isobutylene. Studies of this material (S-Polymer) revealed remarkable versatility and many qualities necessary to solve difficult packaging problems. Polyethylene, polyisobutylene and all of the S-Polymers are long-chain hydrocarbon plastics of high molecular weight, similar in many physical properties, yet different in others. They may be thought of as a family of resins which may be used singly or collectively.

One of the effects obtained by blending polyisobutylene and polyethylene is a reduction in temperature sensitivity and a corresponding improvement in processability. The two polymers may be blended by milling, banburying or extruding. Blends may be formed into self-supporting films by calender-

* Polyisobutylene trademark "Vistanex" marketed by Enjay Co., Inc., New York, and covered by U. S. Patent 2,130,507 and other patents.

ing, extruding or solution casting. They may be coated on cloth or paper and rigid and semi-rigid forms such as bottles, vials, caps, etc., may be molded by techniques used for polyethylene. Heat-sealing properties of polyethylene are improved by addition of as little as 15% polyisobutylene. The addition of polyisobutylene to polyethylene also makes it easier to print on the plastic film.

Polyethylene's permeability precludes its use as a gas- or vacuum-tight film. Experiments have shown that blending with polyisobutylene reduces this permeability, in some cases to a very low level. It appears possible, therefore, to fabricate films from selected blends which will be useful in vacuum packaging where resistance to the penetration of all gases and water vapor is necessary. There are possibilities for packaging dehydrated foods which may require selective resistance to gas penetration as well as water-vapor impermeability. They may be suitable for dried-fruit packaging which depends upon sulfur-dioxide retention and oxygen exclusion.

S-Polymers are somewhat unique among plastics and resins since they can be used alone or blended with several other plastics and many of the elastomers. Two polymers are currently available, S-50 and S-60. These are copolymers of 50 to 60% styrene, respectively. They are quite similar except that S-60 is more brittle and less rubberlike than S-50. Tensile strengths and elongations of the S-Polymers compare quite favorably with those of thermoplastics in current use. However, the extensibility or elongation is considerably higher than for the usual thermoplastics. The resistance of the S-Polymers to the penetration of water vapor and gases is probably their outstanding characteristic. The transmission of water vapor is as low as for polyethylene, while the resistance to gas penetration is greater than for the latter. Outdoor exposure tests of the S-Polymers have given good results. The materials are stable over a wide temperature range and are resistant to most chemicals normally encountered. In appearance, they range from colorless to slight opalescence and can be readily pigmented. Tasteless, odorless and non-toxic, the S-Polymers can be easily processed on all conventional types of rubber- and plastics-fabricating equipment. The materials may be termed as self-plasticizing. Rigid temperature controls are not necessary in fabricating these materials; processing temperatures may range from 250 to 400 deg. F.

Following are several specific applications for which S-Polymers have shown promise. Thin self-supported films readily fabricated from S-Polymers have many desirable qualities that are requisite to meet the present-day trend for packaged products. The excellent resistance to water-vapor penetration is essential to the preservation of products which must be kept moist, as well as for the protection of other packaged products which need to be kept dry under humid atmospheric conditions. Storage tests on fresh and dried fruits indicate that S-Polymer films will give superior protection to many food products packaged for retail consumption. Fresh oranges, lemons and grapefruit were packaged in S-50 film of 2-mil thickness for periods in excess of six months under atmospheric conditions.

S-Polymers, since they have low permeability to oxygen, sulfur dioxide and water vapor, also appear ideal for packaging dried fruit. Tests were conducted in which dried fruits were sealed in S-60 bags of 2-mil thickness and stored under atmospheric conditions for 21 weeks. At the conclusion of the test the fruits retained their freshness, taste, appearance and approximately 98% of their original weight.

In the case of packages for such other items as cigarettes and cigars the results have been very encouraging. Cigarettes were wrapped in S-60 film and stored under various conditions with quite good results. In the investigations on cigarette and cigar packaging, an interesting property of S-60 film was demonstrated. It is recognized that to be successful in this field the film must be of superior clarity, must heat seal and must have excellent resistance to the penetration of gases and water vapor. In addition, the film must be adaptable to current high-speed packaging equipment. Cigars were

packaged in S-60 film 1-mil thick on a commercial packaging machine with no serious difficulties. S-60 film seems to have a proper balance of properties to participate in this field. It may well be that S-60 Polymer is unique among thermoplastic films since it appears to be a competitor for cellophane in the tobacco-packaging field. It has the desirable properties of water-vapor resistance, heat sealability, clarity and sufficient stiffness to be adaptable to high-speed packaging. Apparently, it can compete on an economic basis due to its high volume per pound and high yield of film, about 29,000 sq. in. of 1-mil film per pound. Cellophane yields about 19,000 sq. in. of film per pound.

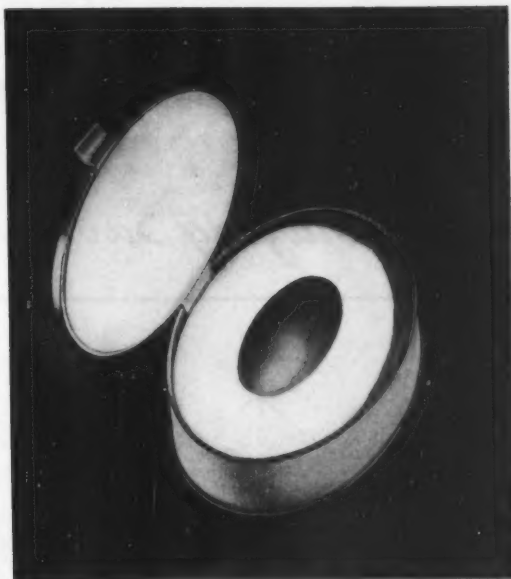
Other interesting and practical applications of S-Polymer films are their use for the convenient packaging of tack polymers such as butyl, guayule, certain GR-S polymers, etc. They may also be used as containers for dry colors, fillers, accelerators and other dusty or toxic materials used in resin, rubber and paint-compounding operations. Here the compatibility of S-Polymers with many of the elastomers, resins and solvents permits the addition of the container along with its contents to the mix without affecting the quality of the product. This results quite frequently in a simpler, cleaner and safer blending operation.

The simple process for making hot-melt coatings and the limitations of waxes for coatings are quite well known. Although waxes have been used for a number of years as moisture-resistant barriers, it is recognized that they lack flexibility, strength and, for cellophane coatings, adhesivity. As was pointed out earlier, S-Polymers are compatible with and soluble in waxes. As modifiers of waxes for hot-melt coatings, the polymers raise the melting points of the waxes, tend to stabilize the waxes against breakdown from heat, improve the flexibility and in some cases lower the permeability to water vapor. High polymer concentrations in wax have shown considerable promise for cellophane coatings, wax-paper laminates and as adhesives for paper labels that are to be applied by heat and pressure on cardboard and cellophane containers. Low polymer concentrations in wax have been used successfully for bread wrappers. Wax coatings modified with S-Polymers show much less tendency to bleed or run when stored at elevated temperatures and much less tendency to chip or flake off with handling. From a processing standpoint, the fortified wax shows a definite increase in hot-melt viscosity. This characteristic results in better control over thickness of coatings and penetration of the wax into the stock.

One of the most unique applications of S-Polymers in the packaging field is for the manufacture of flexible capsules for packaging medicinals, food products, toilet articles, etc., which have an aqueous or alcoholic base. Conventional gelatin-capsulating equipment may be used with minor modifications. Bottles and vials have also been molded with good results.

It is recognized that S-Polymer or any other packaging material may have many outstanding characteristics to recommend it for packaging. However, if the cost in the final usable form is exorbitant it will have no future. From the economic aspects there are several things which seem favorable to the future of S-Polymers. At the present time they are in what might be termed a semi-commercial stage of development. Large quantities are available for commercial development, but production at the present time is somewhat limited. Present cost of production is high, but this will be reduced as larger-scale operations are undertaken. Basically, there are several factors which encourage the belief that these resins will be competitive with any of the film-forming materials in current use today. These factors are: (1) Raw materials are low cost and readily available in abundant quantity; (2) The polymers have relatively low specific gravities, resulting in a large film surface per pound of material; (3) No additives or plasticizers which require an intermediate compounding step are necessary for processing; (4) The polymers may be processed and fabricated by thermal means using conventional equipment and scrap may be reclaimed and used with essentially no waste loss.

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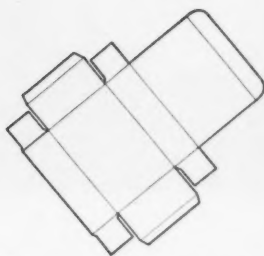
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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

Aniline printing—I

AN EXAMINATION OF RECENT IMPROVEMENTS THAT HAVE MADE ANILINE THE FASTEST-GROWING PACKAGE-PRINTING METHOD.

By Douglas E. Tuttle and O. C. Holland*

Each year more and more package users "discover" the advantages of aniline printing. They find the aniline method capable of excellent results at competitive costs and with a unique adaptability to many different types of work. Statistics tell them it is the fastest-growing method of printing in the packaging field. Aniline printing in 1950 is indeed a mature, full-fledged partner of the more-familiar processes—far removed from the so-called "rubber-stamp printing" of 20 or 30 years ago.

Aniline printing today has a greater variety of applications in the packaging field than any other process. Originally it revolutionized paper converting methods and then stepped into the cellophane field. More recently aluminum foils, boxboard, plastic film and corrugated stock have been added to the list of aniline-printed materials. Among the other packaging materials now printed by the millions on aniline presses are glassine; coated, lacquered and fancy papers; pressure-sensitive tapes; bottle carriers; egg cartons; gummed tape and laundry boxes.

Despite this impressive rapid growth in acceptance, there is need for a better understanding of the aniline process by package users. Even those who have used aniline-printed packages for years may not be fully aware of all the possibilities. A sur-

vey of aniline printing, its advantages and limitations, is more important than ever before to all packaging people.

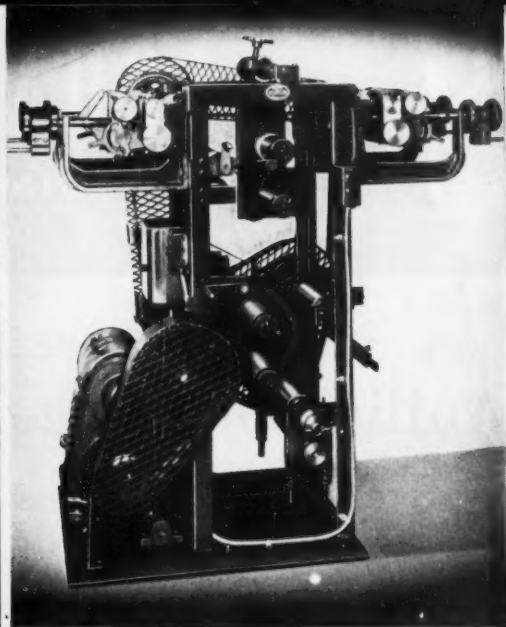
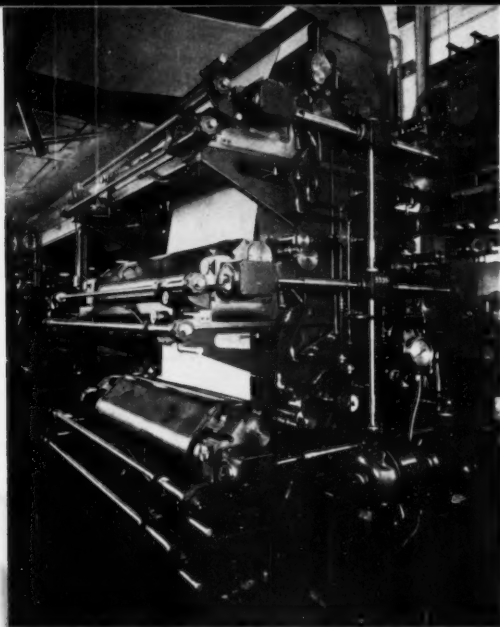
The term "aniline printing" applies to rotary rubber-plate printing with a one-, two- or three-roller fountain system. It was so named because aniline dyes gave color to the early inks used, although such dyes are rarely used today. The basic principle depends

upon fluid, fast-drying inks and flexible rubber plates. It is the simplest and most versatile system of rotary relief printing. In the aniline method, a rubber plate is firmly anchored to a metal cylinder (usually by a two-way adhesive backing sheet known in the trade as "sticky back"). The plate is inked by a form roller running against a metal or rubber roll which turns

1. VERSATILITY of the aniline process is illustrated by this selection of typical packaging materials now successfully printed on aniline and Anilox presses. PHOTO COURTESY INTERNATIONAL PRINTING INK.



*Both of the International Printing Ink Division, Interchemical Corp., New York.



2 and 3. SIZE RANGE of aniline equipment is indicated by big six-color stack-type aniline-Anilox press, left, contrasted with smallest two-color press, right. Small press, with cylinders only 6 in. wide, is used for printing pressure-sensitive tapes at high speed; it will also deliver perforated rolls or rectangular labels. Big press carries webs up to 65 in. PHOTO NO. 2 COURTESY KIDDER PRESS CO., INC. PHOTO NO. 3 COURTESY PAPER MACHINERY & RESEARCH, INC.

partly submerged in the fountain. That's all there is to ink distribution. In regular aniline printing, the amount of ink fed to the plate depends upon the force of contact between form and fountain rollers. The web to be printed is threaded between the plate cylinder and an impression roller (usually metal) with just enough contact for a kiss impression. The utter simplicity and great flexibility of such a process are the key to aniline's growing importance to package users.

Aniline rubber plates of today are high-quality products of skilled technicians and craftsmen. Research has produced rubber compounds with controlled shrinkage, in a wide range of hardness gradations and solvent resistance. Modern rubber plates are capable of making more than a million impressions even where fine type dominates the design. They should not be confused with ordinary rubber stamps, nor with the early rubber printing plates.

Another of their advantages is that they may be made in a wide range of sizes. Molded plates are available from postage-stamp size to 22 by 28 in. Hand-cut plates 4 in. wide by 15 in. long could be made if there were presses large enough to use them. In

fact, during the late war millions of targets 6 by 10 in. were printed on aniline equipment for use by the U. S. Army.

A recent improvement in aniline printing is the Anilox[†] knurled (mechanically etched) steel-form roller, which replaces the smooth-rubber or metal-form rollers in aniline presses. Anilox rollers have thousands of tiny cells which deliver a constant, measured amount of ink to the plate largely independent of roller setting, press speed or type of ink. This improvement means smoother, cleaner, more-uniform printing for package users. Presses using the new-type rollers are properly called Anilox or aniline-Anilox presses.

Advantages and limitations

Versatility. To most package users, versatility is the chief virtue of aniline printing. Plates are quickly and inexpensively made and applied to the press with a minimum of make-ready. Aniline handles the full gamut of web stocks in practically all weights or gauges. And there are aniline inks with virtually all the special characteristics required of other inks.

High speed. Fast-drying inks and

the rotary principle automatically make aniline printing a high-speed process. Because of this high speed and fast drying, it is ideally suited for feeding printed stock direct to other converting operations (slitting, forming, etc.).

Economy. For all-around package printing the efficiency of aniline equals that of any other process; for many applications it is obviously the most economical method of printing. There is less waste of stock; less "down" time between jobs. More jobs can be handled on a single press.

Special uses. Aniline printing has been found the only practical solution to many printing problems. The relatively soft, yielding nature of rubber plates makes them ideal for rough stocks, such as chipboard, which do not print well with metal plates. And the fluidity of aniline inks is well suited to a rough, absorbent surface. Aniline presses made possible, for example, the first sharp, clean, quality printing of low-cost laundry and egg boxes. And for corrugated-container manufacturers, the aniline method has provided the solution to a coating and coloring problem of long standing. In the printing of polyethylene film, the aniline method has helped to solve a

[†] Trademark of Interchemical Corp.

difficult problem of great interest to package users. The first commercially acceptable printing of polyethylene was done on aniline-type presses in May, 1949. Today, after a year's experience, several aniline printers are producing remarkably good work on polyethylene bags in as many as three colors. The comparatively low costs, particularly for short runs, permit both small and large users to take advantage of polyethylene's unique advantages with the added value of good, colorful labeling.

Quality. The quality of aniline printing today may be rated as excellent—equal to that obtained by any other process on work within its limitations. This year package users will see thousands of packages (of all types) better printed by aniline than they were when produced by other methods. If a package design is suited to reproduction by rubber plates, aniline printing can usually give equal or superior results with as good or better color uniformity, with clear or opaque inks. This is especially true where the same design and colors are used on various stocks with a wide range of printing characteristics.

Non-toxicity. The impression still exists in some quarters that aniline inks are toxic and cannot be used on packaging materials that come in contact with food products. This erroneous impression arises from an unfortunate association of the term "aniline" with the original solutions of coal-tar dyes known by that name 40 or 50 years ago. Such solutions are not used in aniline inks today. Thus, the term "aniline" printing is something of a misnomer. In the modern inks used on aniline-type presses for food-package printing, the same non-toxic pigments as employed in inks for other processes are used, along with suitable solvents and resins. In all respects, they are among the safest food-package inks available. And in addition, the dried-ink films are practically odor free. In the few cases where dyestuffs are used in aniline inks for food packages they are exactly the same type of dyes as those in inks used by U. S. Dept. of Agriculture inspectors for stamping approval seals directly on meats, and the same dye formulas are used by the medical profession as tracers in liquids or solids administered internally for certain diagnostic work. The fact that ink formulas can readily be found to meet almost any special food-package requirement is one of

the strong points of the process.

Limitations. As with any process, aniline printing has its limitations. In theory, aniline printers are limited in their work by the limitations of rubber plates only. In practice, the aniline process is not yet adapted to fine-screen and hairline-register work. But with the proper design, almost any job can be printed successfully with aniline and Anilox presses. Any number of colors can be overprinted, up to the practical capacity of the press. The most striking results are obtained when a package is designed to take full advantage of the strong points of the aniline process.

History of the process

Most Americans think of the aniline process as a brand-new or at least a very recent development. Actually, the year 1950 marks its 60th anniversary. According to British records, the idea originated in 1890 when the firm of Bibby, Baron & Sons, Ltd., English paper-bag makers, applied for a patent on a method of rotary printing from rubber plates. The inks used were basically glucose and pigment in

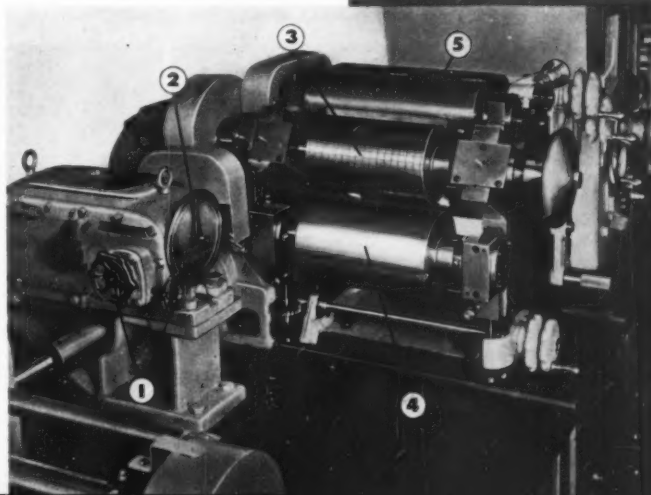
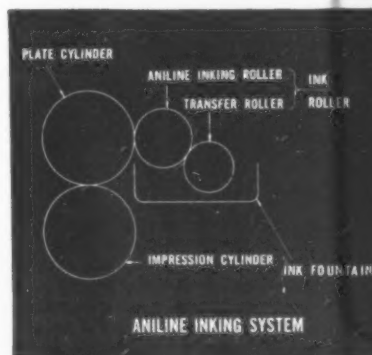
a solvent of water—a radical departure from conventional letterpress inks. The experiment succeeded as a mechanical process despite the poor quality of 1890 rubber plates. But unfortunately the inks took too long to dry and diluted themselves by attracting moisture from the air; also the printed film was sticky and bled badly when wet. Printers of that day called the method "Bibby's folly."

In 1908 the problem of inks for rubber-plate printing was solved by an Alsace-Lorraine machine-tool maker, C. A. Holweg. He used alcohol as a fast-drying solvent and aniline dyes for coloring matter. His mechanical genius produced better press design and hooked up the press with slitting and other converting operations. Holweg's original patent (British) was basically a processing or method application and specified "a method of printing paper bags . . . on a rotary printing machine which is . . . provided with elastic blocks or type, characterized in that the impression is made with aniline colors dissolved by alcohol."

For the next 20 years comparatively

4 and 5. PRINCIPLE of aniline printing method is shown by diagram of inking system; Anilox system is same with addition of doctor blade above inking roller. Close-up photo of a typical aniline-Anilox printing unit of latest design shows: (1) micrometer control and (2) dial speed indicator for variable-speed transmission; (3) plate cylinder; (4) impression cylinder; (5) fountain enclosure.

PHOTO, DIAGRAM, COURTESY CHAMPLAIN CO.



little progress was made. The process continued to gain favor in the low-cost paper-converting field, but was not regarded as suitable for other work. After 1930 the great depression created a pressing demand for better package printing at lower cost. Also, cellophane entered the picture with printing problems which conventional methods could not solve. The oil inks of letterpress would neither stick to nor dry properly on the smooth, non-absorbent surface of cellophane. Rotary gravure printing did the job well, but cylinder-making costs were high for all but the longest runs and dependable sources for etched cylinders were lacking. Aniline printing was seen as a possible answer to the package-printer's dilemma.

Aniline presses in use at that time were of simple, light construction with few of the refinements common to other package-printing machinery of that period. Improved rubber for plates had been available since about 1925, but plate makers were still unable to produce uniformly good plates for all types of work. Also, the inks of 1930 differed little from Holweg's original formulas of 1908; they lacked opacity, finish and lightfastness.

Today's aniline presses are models of efficient design and precision construction. They are beautifully built with every refinement known to American press engineers. Frictionless bearings, balanced rolls and sturdy

frames and foundations cut vibration to a minimum. Close-tolerance machining and rugged shaft design eliminate print distortion at the higher-running speeds now demanded. Yet, with all these refinements, the simplicity of the aniline principle keeps press costs relatively low. This saving in capital investment is reflected in lower unit cost of aniline-printed packages.

Modern aniline presses range in size from a 300-lb. cellophane tape printer (handling 1-in. webs) to giants weighing 20 tons and printing 6-ft.-wide webs in up to six colors. (See Figs. 2 and 3). Since aniline is essentially a high-speed, continuous-web process, relatively few sheet-fed presses have been built. However, sheet-fed models which can print large, flat sheets of corrugated or other board are now entering the picture with every promise of pronounced success. Speeds of web-fed aniline presses vary from 100 to 1,000 ft. per minute, depending upon various factors.

Basic aniline printing unit

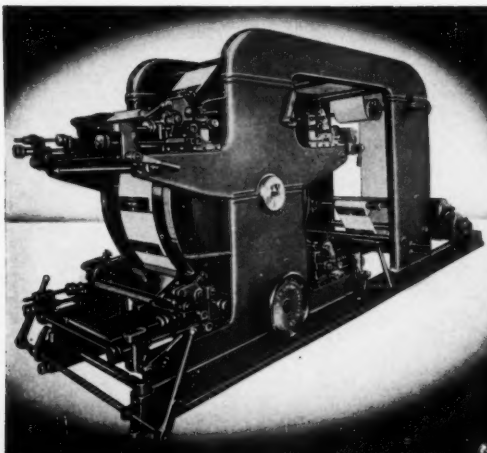
The simplest aniline press consists of a single printing unit with fountain and distribution system, plate cylinder and impression roller. The inking system is diagrammatically shown in Fig. 4. It must also have a web feed and rewind or delivery system. Regular aniline fountain and form rollers are usually made of natural or syn-

thetic rubber of about 50 to 60 Shore Durometer hardness. Steel Anilox form rollers are used with rubber fountain rollers of about 70 to 80 Shore Durometer hardness. Also a combination of metal fountain rollers and rubber form rollers (or vice versa) can be used. Plate cylinders are made of hollow-steel tubing or solid-metal stock, depending on the diameter desired. These are generally marked with precisely located grids to assure accurate plate registration. Steel impression cylinders are preferred by most aniline printers. This is because metal cylinders can be accurately machined and are more durable than rubber. The rubber plate has in itself all the resilience needed.

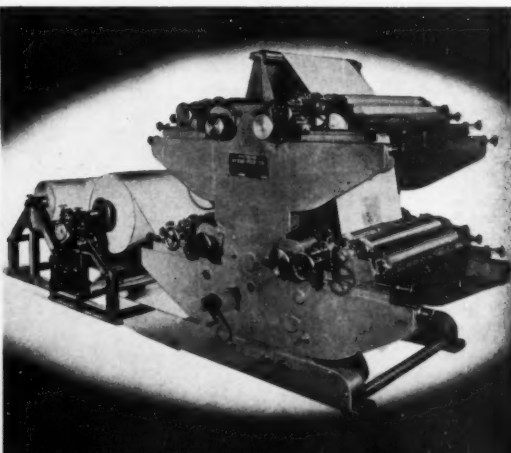
The simplicity of basic aniline units is matched by their flexibility. The two rollers and two cylinders can be arranged in a press design to fit almost any printing problem. They may be placed one above another or in an arc to right or left of the fountain. This flexibility gives press designers greater freedom in creating aniline units for specific applications. Specially designed aniline presses have cut production costs and improved printing quality for many package users with both standard and unusual requirements.

Gear systems of various types drive the rollers and cylinders of aniline presses. Among the latest improvements is the use of variable-speed elec-

6. ARC-TYPE PRESS, developed for cellophane, is now successfully used on polyethylene, Cry-O-Rap and other soft films, with special web-handling equipment which controls stretch. All colors (four on this press) contact web as it revolves with large drum, locked in position. Colors are driven by a single gear for control of registration. Its speed on cellophane is 475 ft. per minute. PHOTO COURTESY HUDSON-SHARP MACHINE CO.

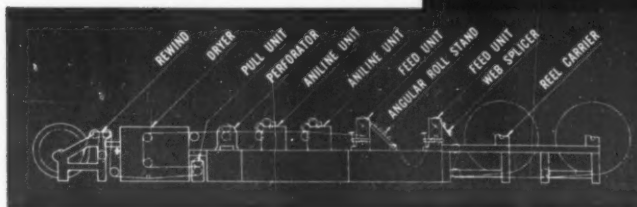


7. FEED AND REWIND rolls are at same end on this four-color, stack-type aniline press. Presses of this general design are often made to handle extra-wide webs for special jobs. The web is commonly fed from the top and led back over the press to the rewind. However, it can be fed from the bottom and led to the rewind at either level. Special stack-types combine aniline with gravure or letterpress units. PHOTO COURTESY WOLVERINE PAPER CONVERTING MACH'Y CORP.

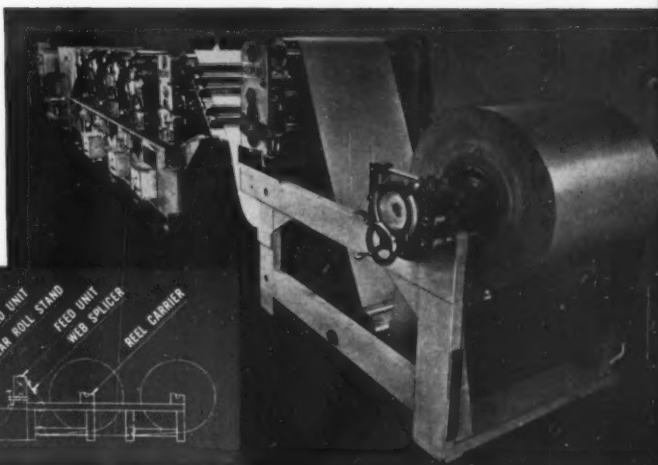


8. COUPLED with rotary carton blander and stacker delivery mechanism (far end), this three-unit aniline-Anilox in-line press prints, blanks and die cuts egg cartons in one operation at 450 ft. per minute. Press has single roll stand, feed unit, balanced-air-system ink dryer.

9. DIAGRAM of a two-unit aniline-Anilox press with two-roll stand, feed unit, perforator, pull unit, hot-air-system ink dryer and rewind. Similar to machine in Fig. 8, this one prints and blanks milk cartons in one operation.



PHOTOS AND DIAGRAM COURTESY CHAMPLAIN CO., INC.



tronic and mechanical drives for precise and positive repeat control to each unit. This permits a complete range of repeat lengths not limited to the pitch and number of teeth in usual geared systems. Such drives provide easy plate-register adjustment through a full 360 deg. while the press is running. All aniline presses are designed for easy removal and replacement of plate cylinders. There are two reasons for this design feature. First, cylinders of many different diameters are used on the same press. Second, plates may be mounted and preregistered on one set of cylinders outside the press while another job is running. This preregistering is done today on mounting and proving machines which speed up the work, yet give precise results. They make possible a higher percentage of running time for the presses, since press "make-ready" is virtually eliminated.

In normal aniline-printing units, the entire fountain mechanism is movable to and from the plate. This is done without altering roller or plate adjustments. In most models the plate cylinder and fountain assembly may also be moved as a unit toward or away from the impression cylinder. Some presses are designed to move the impression cylinder to and from the printing assembly with substantially the same net result. Such arrangements permit fast, easy plate changes and press wash-ups. Each roller and cylinder is also independently adjustable, often with provision for "cocking" the roll to compensate for plates low on

one side or the other. A recent development for aniline presses is a printing unit which automatically backs the plate cylinder away from the impression cylinder and form roller when the press stops. In such units the ink rollers usually continue to turn at slow speed to prevent ink from drying on the press. Ink in the fountain may be kept circulating with pumps to prevent settling while the press idles and to provide better color control throughout long runs. A detachable metal hood covers most aniline units to retard solvent evaporation.

Complete aniline presses

A complete aniline press may consist of as few as one or as many as six synchronized printing units. In theory any number of units is possible, but in practice there are physical limits as with any process. Some presses group the units about a large, common or "central" impression cylinder after the manner of textile-printing machines. The web is led partly around the cylinder and all or just a few of the printing units may be used as desired. This type of press is used for maintaining close register in printing the more elastic films which are easily stretched out of shape. The large impression cylinder supports the web during its travel and the units are relatively close together so that there is little chance of web distortion between impressions.

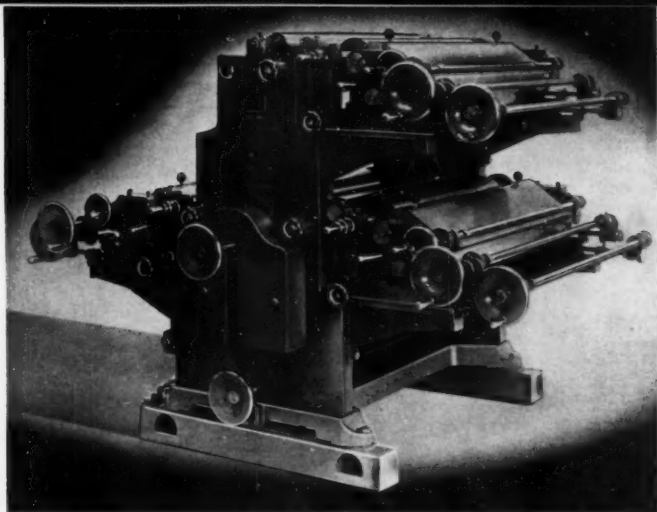
Today the horizontal layout of aniline units is often used for chipboard or similar stocks (where bending of



10. EGG CARTON, produced by machine of type shown above, illustrates the quality of printing and intricate die cutting possible on integrated set-up.

the web lead is undesirable) and a vertical arrangement for most of the more flexible webs such as paper, cellophane or cup stock. Presses having the horizontal plan are called "in-line" or "straight-line" models. Their units are placed one in front of the other on a single plane like the cylinders in a single-bank automobile engine. Stock is fed through the press from front to back. The term "in line" is sometimes applied to other types of presses which feed the printed web directly to slitters, bag machines, etc., in a "coupled" operation.

Vertical-plan aniline presses are known as "stack-type" presses in the trade. They may have one or two stacks of printing units, depending on the sort of work being done. Each stack consists of two or even three aniline units—one above the other. The web is commonly fed from the top and led back over the press to



11. FLEXIBILITY of the stack-type aniline press is indicated by this three-color unit; a fourth printing unit can be added on the left side of the press at any time desired. PHOTO COURTESY H. H. HEINRICH, INC.

the rewind. However, the web can be fed from the bottom as well and led to the rewind at either level. To meet unusual printing problems, there are also special presses of either the horizontal or the stack type which combine both aniline and gravure or letterpress units.

Cylinders and plates

Aniline printing owes much of its flexibility to the fact that many different sizes of plate cylinders may be used on the same aniline-printing unit. "Repeat lengths" (distances between impressions printed on the web) may range from 5 to 25 in. or more in a single aniline-printing plant. Each requires a different-sized cylinder. For very short repeat lengths, a plate cylinder of small diameter is needed. And in such cases the rotating shaft itself may be a one-piece plate cylinder. Another factor to be considered is that of plate-cylinder costs. The need for many different sizes demands that they be relatively cheap and readily available. Gravure-printing units can also use cylinders of various sizes. However, in gravure the plate and cylinder are an integral unit and the cost is governed by cylinder size regardless of whether the design covers a large or small area. Also the quality of gravure printing is built into the plate and no adjustments for defects, ink-film thickness, etc., can be made at the press. Only the ink can be manipulated.

Aniline-plate costs are governed largely by size and of course they may be stored for future use separately, freeing the cylinders for use on other jobs.

Their printing qualities are readily and easily adjustable at the press. And their positions on the plate cylinder are easily changed at any time. Rubber plates can be firmly attached to a smooth metal cylinder with low-cost adhesive materials. Their ability to handle many different repeat lengths permits an almost limitless line of paper bags of various sizes to be printed on the same press with mini-

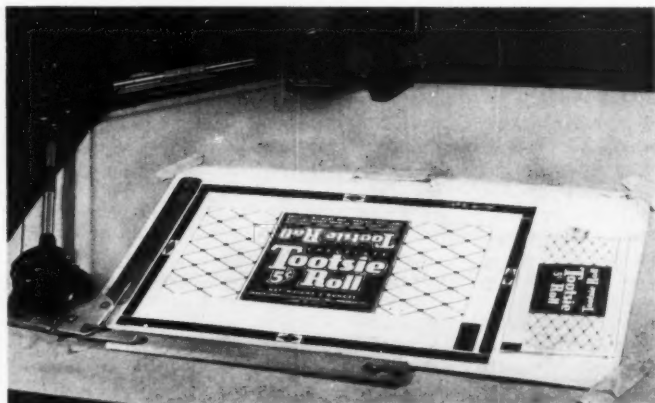
mum plate and operating costs. Wraps and cartons may be handled in the same way to assure brand identity with uniform design and printing over a wide range of sizes.

Rubber (natural or synthetic) carries aniline ink better than any other substance for the average needs of aniline printers. Modified aniline inks of higher viscosity have been tried with metal or plastic stereotypes and electrotypes, but these are not generally suitable for work with highly fluid inks. Moreover a flexible, resilient plate material adapts itself perfectly to web printing with a great many different repeat lengths. Rubber plates can be mounted on any sized cylinder with equal ease. On the other hand, curved rigid plates must be cast or curved with a different curve for each change in cylinder diameter.

Aniline rubber plates are made, preferably, from zinc etchings by a process similar to that used in producing plates for other printing methods, except that the etchings should be deep cut. A matrix of plastic material, generally fibre-filled phenolic, is made from the etching in a high-pressure vulcanizer; then the plate itself is produced from the matrix in the same type of press.

A special type of aniline rubber-plate mounting is that used for continuous-design printing. Such a design roller is permanently vulcanized to the plate cylinder, resulting in a virtually seamless, continuous-design roller.

12. PRECISION must be used in preparing original art work for use in aniline printing. PHOTOS 12, 13, 14, COURTESY MOSSTYPE CORP.



Hand-cut plates for aniline printing were once popular for striping and simple designs. Some are still used for limited applications. However the development of preregistered vulcanized plates for continuous-design work makes hand cutting of intricate designs more or less obsolete.

Synthetic-rubber plates are needed if inks used have solvents harmful to natural rubber. Some printers prefer the synthetic plate for use with all pigmented aniline inks regardless of solvent or type of stock. But in general, natural rubber is preferred for its better flexibility, affinity for ink, resilience and abrasion resistance.

Shrinkage in rubber plates is no longer a major problem. Expert plate makers now understand rubber shrinkage and know how to control it. Art work for rubber plates is often specially prepared to compensate for both shrinkage in the finished plate and stretch in mounting. A set of color plates is preferably made from the same sheet of unvulcanized rubber and always with the "grain" running the same way on each plate. Vulcanizing heat and time in the press must also be uniform.

The need for accurate plates in regular aniline printing with rubber form rolls is due to a basic principle of the process. For best results, only the ink film should touch the plate. Any noticeable pressure by the form roller squashes fine type or lines in the plate and forces ink away from them into the valleys. To a lesser degree such pressure also affects solid areas. The printing will therefore show a corresponding loss of sharpness—especially on hard, non-absorbent stocks such as cellophane. Soft, absorbent stocks demand less critical adjustment of form roller and plate cylinder.

Fortunately for aniline printers, the comparatively new Anilox form roller of mechanically etched steel helps to eliminate most of the troubles caused by minor plate-thickness variations. It does this in several ways. The Anilox roll carries a uniform film of ink along its entire length because it is more positive, more rugged and less likely to bow in the center than a rubber roll. The ink is carried in reverse-pyramid-shaped wells below the roll surface. A doctor blade or roller scrapes or squeezes the surface substantially clean as in rotary gravure printing. Thus the ink cannot be

squeezed away from a plate high spot. It is held in the tiny wells and can move in only one direction—straight out. Ink is pulled out of the wells partly by surface tension and partly by the greater attraction of rubber for the ink. Once on the plate, the tiny droplets of ink flow together and join each other for smooth, uniform coverage. The Anilox form roller is matched to the true pitch diameter of its driving gear, while rubber form rollers are normally made oversize to allow for compression. With the Anilox roll, package designers have greater freedom in designing for aniline printing.

Mounting and registering

The manner of mounting aniline rubber plates on their cylinders is unique in the graphic arts. The practice of using a two-way adhesive material to hold the plates has confused many craftsmen of the other printing schools. However, commercial sticky-back is nothing more than a special double-faced, pressure-sensitive sheeting. It resembles thin electricians' tape which has one side protected by holland cloth to prevent the two sides from sticking together before use. The lay-down side of sticky-back is open and is usually activated by sponging with carbon tetrachloride, benzene, xylol, naphtha or similar solvent; the covered side is tacky and ready for use as soon as the cloth is removed.

At the end of a run, plates are easily stripped off and replaced by new plates for the next run. The adhesive can be reactivated at any time by sponging with suitable solvent.

In the past aniline plates were often registered on the press with much waste of man hours and loss of press time. Today the job is done faster and better with mounting and proving machines which leave the press free to run other jobs. With such a machine a good pressman can quickly mount well-made plates to precise register. The latest-type machines are remarkably fast and accurate. The speed and ease of mounting aniline plates mean additional printing economies for lower package costs.

Expertly made plates and skillful mounting are the key to good aniline plate registration. If a plate is distorted in mounting, it can be peeled back and repositioned in a few minutes. Jobs can be put back on the press on short notice at any de-



13. RUBBER PLATE being applied to aniline press cylinder with "sticky back." One of the advantages of aniline printing is the ease with which these flexible plates can be accommodated on standard cylinders and changed with a minimum of clean-up and make-ready.



14. MOUNTING and proving machines being used today save press time by mounting plates to precise register prior to insertion of cylinder in press. This latest-model machine is said to include many improvements for convenient, accurate printing.

sired time with easy, accurate register.

The use of semi-rigid materials between face and back of regular aniline rubber plates is fast losing favor. Experience indicates that sheet metal, wire screen, fabric, etc., have more shortcomings than advantages. However, they do have their uses in relatively thick plates for special purposes.

The second and concluding portion of this article, discussing modern aniline inks and pigments and their proper selection for the package-printing job, will appear in the July issue.

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Individual-use packets

QUESTION: We are working on a new package for a one-time-use quantity of a detergent powder and bleach mixture. The product is not particularly hygroscopic, but we would like the product protected from wetness and the package to be very tough and yet so constructed that it can be easily torn open and emptied. Do you have any suggestions as to materials?

ANSWER: There are several plastic films that might meet your requirements for your particular product and package.

One of these is Pliofilm and the other is polyethylene. Both of these materials can be readily heat sealed in the form of an envelope or small flat package which will be very strong and tough and will protect your product from casual wetting in use. Pliofilm is printed by many converters, some of whom are also printing polyethylene. You can also find an automatic machine which will take printed roll stock, form the package, fill it and seal it. Or, if your operation is small, you can use preformed envelopes or bags, filling and closing them by semi-automatic means. Care must be taken, however, in the design of your package so that one of the seals is notched and indicated as the means for starting the tear. These plastic films can be very difficult to tear if notching or other means of starting is not used. It might be advisable to suggest that the user cut the corner of the package, since plastic films do not tear too readily under any circumstances.

Wrap for moist, waxed item

QUESTION: One of our new products is a solid carrying both moisture and waxes. It is handled in cool rooms, but we are having trouble with

the paper wrapper and carton becoming soft and stained. This makes the paper stick to the product and results in goods being returned. Can you suggest a low-cost answer to our problem?

ANSWER: Your product appears to have some properties in common with butter and margarine. Both of these products require low-cost packages that do not stain from moisture or fats and which do not lose their strength when damp.

The product wrapper can be a vegetable parchment, a wet-strength greaseproof-type paper or a wet-strength paper that has been dry waxed.

All of these three materials are standard paper products, each available in a wide range of grades and basic weights, either printed or plain. They should retain enough strength to peel from the product even after long storage. The dry-waxed, wet-strength paper is included since it might adhere less than the unwaxed papers.

Your carton can be one of the many forms and styles of tuck or locked constructions that are popular for ice cream or butter—the carton stock being waxed.

These suggested combinations of materials and constructions should provide you with many combinations, any one of which will meet all of the requirements which you have mentioned.

However, be sure to obtain and evaluate as many combinations as possible to select the one that best meets your cost, handling, merchandising and product requirements.

Printed polyethylene film

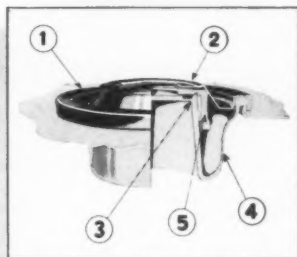
QUESTION: Can you help us decide whether printing on polyethylene is good enough today for some of our products? We pack a variety of dif-

ferent items and we would like to put some of them in polyethylene film. This film seems to have most of the properties we wish, but we would have to use the film printed and we are uncertain about the quality of some of the printing we have seen.

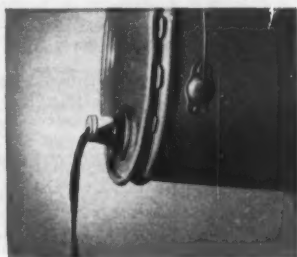
ANSWER: Printing on polyethylene film is certainly being improved in all respects. About a year ago, printed polyethylene had limited use and was characterized by variable adhesion to the film, weak colors and lack of detail. However, because of the increasing importance and volume of polyethylene film, there has been great incentive to improve the printing so that it does not flake off and to make multicolor designs with good details and brilliant colors. Today there are many companies offering printed polyethylene film and you will notice considerable variation in the durability and quality of the inks. A careful survey of commercially available printed polyethylene film would show that the products of some suppliers are sufficiently durable and attractive to warrant their use in many general packaging applications. Occasional samples have been seen which show high color intensity and gloss, resistance to common solvents or fats and wet or dry rubbing, as well as resistance to removal by Scotch tape. The answer is that you can obtain printed polyethylene film for a variety of general packaging applications, but if your product contains oils, solvents, aromatic materials, or if your package is subjected to dampness, then you had better make careful tests before applying for your product present-day printed polyethylene.

At the present rate of progress, polyethylene inks are slowly overcoming their deficiencies. Film made by different processes and with improved quality of printing is certainly only a question of time.

New Leakproof Pouring Spout-Closure Delivers 100% Measure Every Time



CUTAWAY shows how "FlexSpout" protects contents. (1) Metal rim clamps polythene gasket directly to pail. (2) tamperproof metal seal, destroyed at first removal. (3) hermetic seal molded as part of spout provides added protection against leakage and tampering. (4) continuous polythene spout and diaphragm makes leakproof seal, and (5) polythene cap for re-use after seals are broken.



RETRACTABLE spout pulls out easily after hermetic seal is broken. Pouring is easier, every drop of pail contents is drained without ever touching exterior of spout. Polythene spout is translucent, shows when liquid is about to flow.

Made with chemical-resistant Du Pont polythene plastic, new tamperproof closure for pails eliminates evaporation and spillage, is easy to reseal

Here's a new, improved way to stop costly leakage, evaporation, spillage and tampering in pail shipments. It's the "FlexSpout" closure—designed for easier pouring and more efficient sealing—made with tough, chemical-resistant Du Pont polythene. A typical success story:

A large exporter of lubricating oils was experiencing leakages up to 14% in pail shipments. Test shipments were made with these new closures for several months to branches all over the world. Not one single loss due to leakage was found!

Polythene's unusual combination of properties fitted "FlexSpout" to a "T". Its flexibility is made to order for the spout design—as is its extreme toughness—the seal withstands internal pressures far in excess of those the container will hold. Because of its outstanding chemical-resistance, polythene withstands any material that can be packaged in commercially lined pails—in

fact, there is no known solvent for polythene at normal temperatures. Its very low rate of permeability to moisture and most gases protects against evaporation. And polythene is tasteless, odorless, nontoxic—can't harm ingredients. Further, the polythene cap provides a simple, effective reseal.

Today you'll find polythene in many types of closures (plug-type, screw-on, snap-on, etc.) and in other packaging uses from molded bottles for deodorants to heat-sealed wraps for food products. Polythene molding powders are made by Du Pont. This plastic is supplied by extruders, molders, and other processors in film 1 to 30 mils thick, widths up to 112 inches; lay-flat seamless tubing, widths from 2 to 56 inches; molded closures and containers and other forms. We'll gladly suggest suppliers. Write for free data on polythene and other Du Pont plastics to E. I. du Pont de Nemours & Co. (Inc.), Polychemicals

Dept. Plastics Sales Offices: 350 Fifth Ave., New York 1, N. Y.; 7 S. Dearborn St., Chicago 3, Ill.; 845 E. 60th St., Los Angeles, Calif.

**"FlexSpout" closure manufactured by Rieke Metal Products Corporation, Auburn, Ind.*



Choose the "Oliver"

- 1) to improve wrapping and labeling
- 2) to lower production costs

Is your product listed at the right, or is it remotely similar? Then an "Oliver" Wrapping Machine can wrap your product better and label it more attractively... at a low cost that will please you.

Handles wide range of sizes

The "Oliver" is made in 7 different size ranges. The capacity of each model is engineered to wrap packages in the widest range of sizes and shapes. Speeds up to 50 packages a minute.

Quick, easy adjustability

The "Oliver" is known for its versatility. It wraps products contained in cartons, U-boards, cards, or without supports, using any heat-sealing material. You can adjust the "Oliver" for package size in a minute or two. Adjust wrapper length while machine is running. Switch from endfold to underfold instantly. Change the rolls of labels in a jiffy. These quick-change features mean continuous production!

Let "Oliver" packaging engineers show you how they can improve your packaging and save you money.

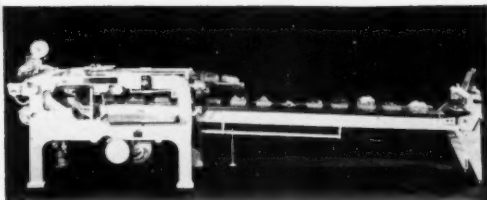
The Versatile "Oliver" successfully handles

CAKES & SWEET GOODS
COOKIES & WAFERS
FRESH PRODUCE
AND MEATS
DRIED FRUITS
BOXED CANDIES
PAPER NAPKINS AND
LUNCHEON SETS
STATIONERY
BOXED CUT FLOWERS
TEXTILE ITEMS
etc., etc.

"OLIVER" AUTOMATIC ROLL-TYPE LABELING SYSTEM



A diecut label from a continuous roll (printed by Oliver) is heat-sealed to wrapper by Labeler. A "blank" label can be imprinted with essential information just before it is applied. Imprint items changeable in few seconds. Investigate!



Made in 7 different size ranges. Automatic Cardboard Folder and Feeder. Infeed conveyors—6, 9, 12, 15 feet long. Electric-eye registration for printed wrappers. Underfold attachment. Self-centering paper rolls.

OLIVER MACHINERY COMPANY, GRAND RAPIDS 2, MICH.

"Oliver" Wrapping Machine

WITH "OLIVER" AUTOMATIC ROLL-TYPE LABELLING SYSTEM

POTDEVIN

Aniline Ink PRINTING PRESSES



4-color multi-length web press. Note long paper run between 1st and 2nd colors and visible inspection before rewinding.



OIL INK PRESS



MULTI-WALL TONER

There are POTDEVIN presses for every need from 10" to 40" web widths... one to six-color work... for direct connection to paper bag and other paper converting machinery or roll-to-roll.

No matter what the material to be printed, light board, paper, cellophane, glassine, etc., you can depend on POTDEVIN presses to do it better.

Consult our engineers on any problem. No obligation. Literature on request.

POTDEVIN MACHINE CO.

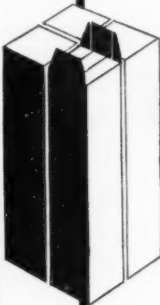
1244 38th Street, Brooklyn 18, N. Y.



Designers and manufacturers since 1893 of equipment for Bag Making, Printing, Coating, Gluing and Labeling.

MARGARINE? LET
PACIFIC FOIL WRAPS
PUT YOUR SALES POINT

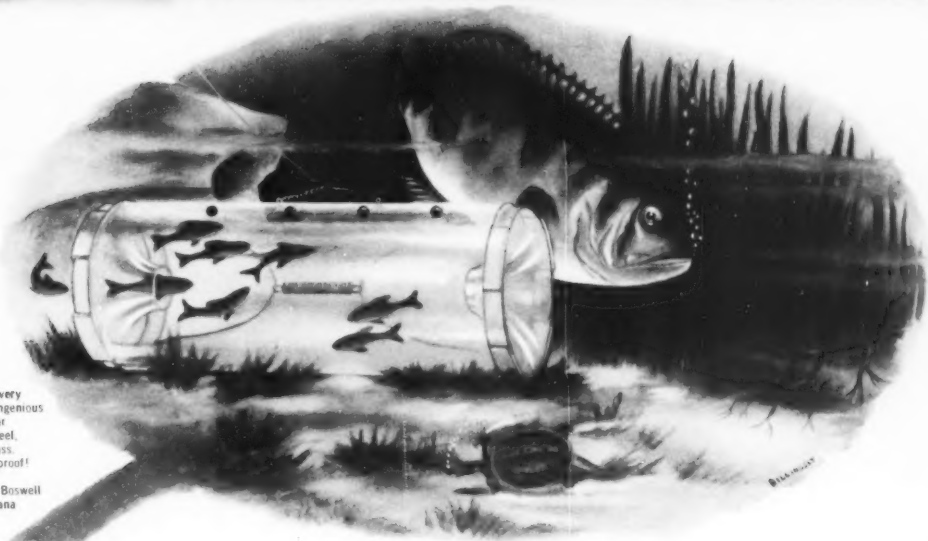
← **HERE!**



Bright foil wraps can help your products win the daily battle of the brands on every grocery shelf. Pacific's high speed rotogravure-on-foil produces labels, wraps, and other packaging aids of high quality. Put them to work helping your product off the shelf and into the shopping-cart. Pacific's sales offices and plant are within easy service distance of western producers.

PACIFIC COAST FOIL CO.

DIVISION OF JORGENSEN & CO.
1107 BATTERY ST., SAN FRANCISCO 11
1127 WILSHIRE BLVD., LOS ANGELES 14



The minnow trap every fisherman wants. Ingenious combination of clear plastic, stainless steel, nylon and solid brass. Shatterproof! Rustproof! Lightweight! Retail, \$3.95—The Boswell Co., Lebanon, Indiana

TRAPPING SALES WITH AMOS MOLDINGS!

Fishing's always *good* if you have the *right* bait

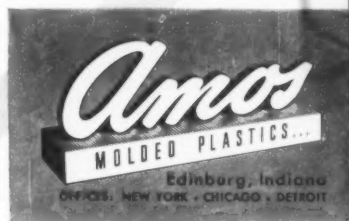
... And there's no finer *lure for sales* than the utility, beauty and economy of Amos Plastics
... For example—sales of the sensational Boswell Minnow Trap skyrocketed after *re-engineering*
by Amos made it a *finer* product—at a reduction in retail price from \$5.95 to \$3.95
—a saving to fishermen of \$2 per trap!

Why not give Amos a chance to repeat this "minnow trap" success story for *YOUR* product?

Write for our new 52-page booklet, picturing in full color the sales and engineering ideas developed by AMOS for every industry.

Injection Molding Specialists
... 8 to 48 ounce capacity

The industry's leading molders of distinctive plastic packages ...



CHINESE CHEST
... A Treasure Chest
of Rare Craftsmanship



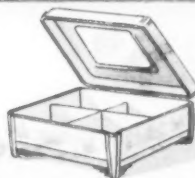
RAZOR KITS
... Exquisite Gift Packages



The IMPERIAL
... Beautiful Dispenser
of Cigarettes and Candies



The POWDER BOX
... Another Distinctive
Package by Amos



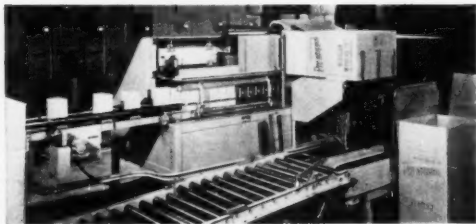
The LOTUS
... Ingenious Design,
Beauty, Durability

Amos' New LARGER Equipment Molds BIGGER Parts For Every Industry!



AUTOMATIC TIERING-TYPE CASE LOADERS

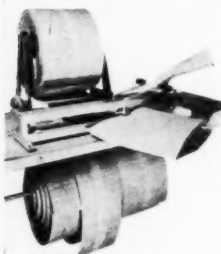
Three new Packomatic automatic, tiering-type shipping-case loaders, made by J. L. Ferguson Co., Rt. 52 at Republic Ave., Joliet, Ill., have been recently installed in the plant of Personal Products Corp. in Chicago. The units receive the individual packages from the carton seal (or labeler) on intake



conveyors which are equipped with automatic set-up devices to raise the packages from on-side to an on-end position. An intake belt conveys the package into tiering position ready for loading into the carton. After loading, the carton travels to the gluing and sealing point. Safety devices on the loader insure proper loading. Packomatic equipment of this type is said to handle from 180 to 1,200 cases per hr. and requires the work of only one attendant to position the containers onto the loading horn.

NEW CUTTING TOOL

Chippewa Paper Products Co., Inc., Chicago, announces a new cutting tool, called the "Chippacutter," made with two types of steel knives, straight or serrated, and may be hand- or



foot-powered as well as motor driven. The cutter, illustrated here, may be placed on a table or attached to the wall. It is designed particularly for cutting single- or double-face corrugated, Kimpack or other types of cellulose wadding materials. Flexibility of the cutter is demonstrated by its ability to cut kraft paper, aluminum foil, reinforced cross-cord paper, linoleum, heavy chipboard and flexible plastics.

The company also announces two other new products: the "Chippamailer," a mailing container designed for use as the shipping package for photographs, blueprints, artwork, etc., and "Chippaflex" single-face corrugated wrapping material, now available in red, green and blue colors as well as white, packaged for shipping and storing in handy corrugated cartons.

NEW VIBRATION PACKAGE TESTER

The L. A. B. Corp., Summit, N. J., is offering a new vibration package tester designed to meet test specifications of the National Safe Transit Committee and large enough to test packages weighing up to 400 lbs. The machine has a vibrating table 36 in. wide by 42 in. long and is also available with a table

54 in. long. It may be had in combination with a basket-type pendulum impact tester at extra price. This combination tester simulates and duplicates practically all of the vibrations and impacts received by a package in transportation and handling and is said to enable a shipper to evaluate the shipability of a package and a product in a short period of time.

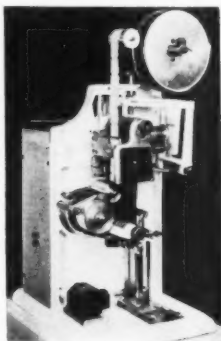
WEST COAST SUPPLIER OF SELF-ADHERING TAPES

Coated and uncoated pressure-sensitive tapes in a range of background colors and widths, imprinted in one and two colors to user specifications are available from Cellotape Printers, 3146 First St., Palo Alto, Calif. Inks are surface sealed against smearing, fading or running, according to the company, which suggests such applications as labeling, sealing, price marking, coding and point-of-sale advertising uses.

LABELER FOR HAND PRE-PACKAGING FIELD

Oliver Machine Co., Grand Rapids, Mich., introduces the "Oliver" #806 imprinter, cut-stacker for supplying loose, cut

and stacked heat-sealing-type labels for cellophane-wrapped packages. Designed to aid in hand pre-packaging, the new machine imprints the essential data on a blank, roll-type thermoplastic label by means of easily-interchangeable rubber slugs. An electrical contact stops the unit after a predetermined number of labels is cut and a removable, sliding magazine is provided for the finished labels. The unit, capable of producing over 100 labels per min., is said to provide flexible, attractive package identification at comparatively low cost.



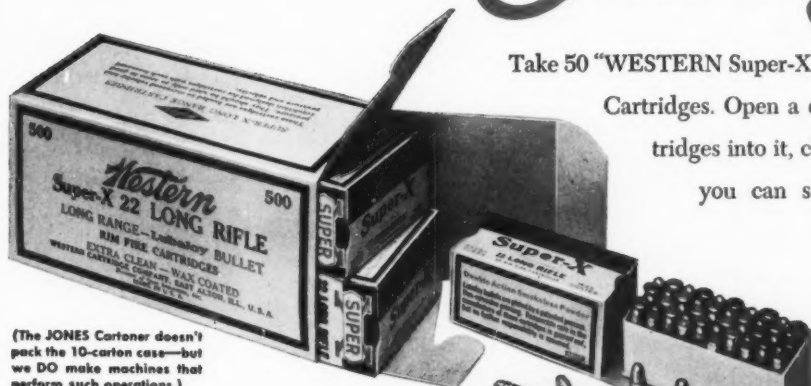
PRESSURE-SENSITIVE PAPER TAPE

Low-cost, self-adhesive paper tape for use in taping special deals, as advertising decal strips, small identification labels for price, size and style, spot labels for ingredients, etc., has been developed by Tripp Tape, Inc., 117 W. Main St., Dundee, Ill. Available with one- and two-color imprinting, perforations and a waterproofing coating if desired, the pressure-sensitive paper tape is said to adhere to wood, metal, glass, paperboard and papers, including waxed paper. It is also reported that the paper tape peels clean and reseals easily. It is available in widths from 1/8 to 2 in. and in rolls and half rolls (3-in. core—72 yds.—and 1-in. core—36 yds.)

METAL-COATED ACETATE AVAILABLE

Metallized acetate for use in displays, packaging, ornaments and as ribbon is now available from the Dorrie Process Co., 60 Greenpoint Ave., Brooklyn, N. Y. Acetate rolls, colored on one or both sides, are available in pastel metallic shades, as well as in non-tarnishing aluminum, silver, gold, tin, etc. Gauges for this type of stock (up to 40 in. wide) run from 0.001 to 0.0075 in. Crinkled acetate material in 0.001 gauge can also be coated

Quick View of a **RAPID-FIRE** Cartoning Job



(The JONES Cartoner doesn't pack the 10-carton case—but we DO make machines that perform such operations.)

Convert the machine when desired to two other sizes — SHORT or LONG Cartridge. Keep up this uninterrupted process until the millions of shooters who prefer Western Cartridges are being continuously supplied — and keep it up! — and KEEP IT UP! — (the fast low-cost cartoning, we mean.)

THAT'S the fast tough job this JONES Fully Automatic Cartoner performs — day in — day out — speeding production, cutting costs, making profits.

This example of speedy, low-cost cartoning is only one of hundreds — many hundreds — of varied cartoning jobs being efficiently handled by JONES machines.

Ask for Information...

about either the JONES Fully Automatic Cartoner, (shown above); or the JONES "CMV" Cartoner, Fully Adjustable for a wide range of carton sizes.

Take 50 "WESTERN Super-X 22 LONG RIFLE" Cartridges. Open a carton, put the cartridges into it, close it — faster than you can say "Bang! Bang!"



Ask, too, for the 97-case Report on cartoning costs for comparison with your own. No obligation; bulletins sent promptly on your request.

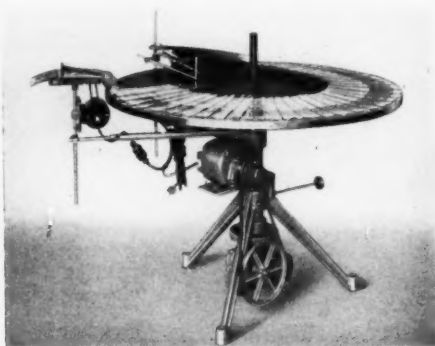
R. A. JONES & COMPANY, INC.

Cartoning Machines - Soap Presses

**P. O. BOX 2055
CINCINNATI, OHIO**

THE NEW CLINTON COOLER - STACKER

*for Use With Any Front Chute
Delivery Bag Making Machine*



Patents pending

COOLS each bag perfectly and prevents bags from sticking to one another.

PRESENTS each bag for inspection by the operator.

STACKS the bags for removal by operator in any quantity for storing in cartons.

OPERATES with any bag making machine that has front chute delivery.

ADJUSTABLE for bags from 2 inches to 22 inches long.

VARIABLE speed for fast or slow cooling.

SAVES time and material.

WRITE for full information.

CLINTON PACKAGING MACHINES

Park Street Extension

CLINTON, MASSACHUSETTS

Equipment and Materials

(Continued)

and is available in 20- and 40-in. wide rolls, in silver, gold and five other standard colors, colored one side only. The material can also be ordered embossed, laminated, slit or formed.

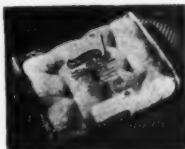
AUTOMATIC CARTONER HANDLES SMALL ITEMS

The new Neomax carton tucker, designed and built by the Engineering Division of Bristol Myers Co., introduced at the 19th AMA Packaging Exposition in Chicago, is designed to eliminate manual cartoning of small items. Maximum-sized carton handled is 5⁷/₈ by 2¹/₈ by 2¹/₈ in.; minimum, 1¹/₈ by 5⁷/₈ by 5⁷/₈ in. Designed for easy size change, this machine is claimed to handle 25 to 35 cartons per min.—double or treble the number handled manually by one operator. It is recommended for the drug, cosmetic, chemical and food fields.



STOCK-DESIGN "BROWN 'N SERVE" WRAPPER

A new stock-design cellophane wrapper for "brown 'n serve" baked goods is being offered by the Crystal Tube Corp., 538 S. Wells St., Chicago, Ill. The cellophane wrapper comes in 300-MS rolls, printed in color combinations of brown and white or brown and yellow, with adequate space provided for the addition of the individual baker's name or trademark, while providing product visibility.



ADHESIVE-TIPPED RIBBON BOWS

Pre-tied ribbon bows with spot adhesive on the ends, ready for application on gift-packaged products are available from the Adhesive-Bow Corp., 131 W. 24th St., New York. Bows can be ordered with any length of wrapping ends treated with the adhesive spots.

RE-USE CONTAINER OF COLONIAL STYLE

The I. D. Co., 150 Spring St., New York 12, N. Y., has available a lithographed square metal container of Colonial styling with re-use features suitable for many quality packaging purposes.

The illustration is reproduced in full color and the dimensions of the container are 4¹/₈ by 4¹/₈ by 4¹/₈ in. The container is white enameled internally and has a double-walled lid.



NEW-STYLE CORRUGATED CARTON

A self-locking corrugated carton with no seam at the bottom has been designed by the Shelton Mfg. Co., Inc., 42-24 Orchard St., Long Island City, N. Y., which can be folded into a rigid box with a double thickness of corrugation at the bottom and



Kodak

Enchants ...at first glance

THERE'S SOMETHING about Kodapak Sheet that seems to cast a spell over merchandise—and people. Its gleaming transparency adds sparkle and "life," makes customers want to buy. At the same time, it acts as a barrier against fingering. As a result, goods packaged in Kodapak Sheet sell faster, stay fresh longer.

Kodapak Sheet comes in two basic forms: Kodapak I Sheet, cellulose acetate, in gauges up to 0.060"; Kodapak II Sheet, cellulose acetate butyrate, in gauges up to 0.002". Both are made to the same high standards, under the same conditions as Kodak photographic film base.

To learn more about the fabrication possibilities and

practical uses of Kodapak Sheet, consult your nearest representative, or write Rochester. And the extensive facilities of the Kodapak Demonstration Laboratory are always available, by appointment.

Cellulose Products Division

Eastman Kodak Company, Rochester 4, N. Y.

Sales offices in New York, Chicago.

District Sales Representatives: Cleveland, Philadelphia, Providence.

Pacific Coast Distributor: Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle.

Canadian Distributor: Paper Sales, Ltd., Toronto, Montreal.

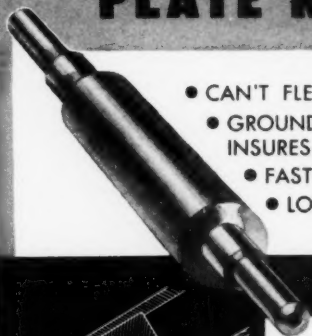
FOR THE DISPLAY YOU WANT . . . THE PROTECTION YOU NEED . . .

Kodapak Sheet

"Kodapak" is a trade-mark

FOR BETTER ANILINE PRINTING

Use **no-flex** PLATE ROLLS



- CAN'T FLEX OR WHIP
- GROUND FINISH INSURES ACCURACY
- FAST DELIVERY
- LOW IN COST

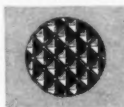
**UNCONDITIONALLY
GUARANTEED
FOR SEVERE
SERVICE**

CUTAWAY SHOWS HOW EXCLUSIVE PROCESS FUSES ENTIRE JOINT INTO ONE SOLID MASS, INSURING EXTREME RIGIDITY. TUBE CONSTRUCTION REDUCES WEIGHT.

No-Flex — the new plate rolls that completely eliminate flexing and whipping—are your guarantee of a perfect impression. Special high speed lathes and equipment and improved methods of manufacture mean you get precision made rolls, quickly, and at lower cost. All No-Flex rolls are ground finished to your exact specifications and carefully inspected before shipment. The next time you need plate rolls, call Pamarco for faster service, lower cost and a better printing job.

EVENFLO ANILINE INKING ROLLS METER THE INK FOR BEST RESULTS

EVENFLO ENGRAVED ANILINE INKING ROLLS — Eliminate ink waste, poor quality runs and rejects due to faulty inking and require no time-consuming adjustments. Evenflo Rollers meter the ink in the exact quantity needed, continuously and automatically. Proper inking — without operator attention — saves stock, ink, press down-time and operator fatigue. Using Evenflo Aniline Inking Rollers means high production quality — lower production costs.



ENLARGED VIEW OF ENGRAVED SURFACE SHOWS SCREEN THAT AUTOMATICALLY FEEDS CORRECT AMOUNT OF INK.

Quotations on plate, impression, special rolls and custom equipment supplied without obligation

PAMARCO

**ANILINE PRINTING PRESSES
EVENFLO ENGRAVED ROLLERS
PAPER CONVERTING MACHINERY**

PAPER MACHINERY & RESEARCH, INC.

1014 OAK STREET • ROSELIE, NEW JERSEY

Equipment and Materials

Continued

sides. Named "Shellock," the new carton's seamless bottom permits a considerable saving in packing time since it requires no taping, gluing or stapling, according to the company. Orders for the carton are now being accepted for standard sizes as well as special sizes.

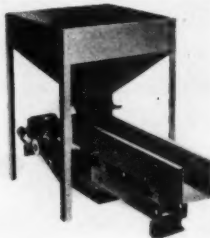
PRINTING PRESS FOR NARROW-GAUGE ITEMS

Ever Ready Label Corp., 357 Cortlandt St., Belleville 9, N. J., introduces its "Rotary X" press for imprinting gummed tapes up to 3 in. in width for use in the wrapping, packaging and shipping industries. Reproduction is by means of rubber plates and the press is available in two models for one- and two-color printing. Ink-distribution units allow simple conversion from quick-drying-aniline to oil inks. For long press runs, Ever Ready offers a 24-in. mill roll with predetermined counter; another attachment is a slitting device which cuts the 3-in. rolls into $\frac{1}{8}$ - to $\frac{2}{3}$ -in.-width tape ribbons. The "Rotary X" is said to print ungummed paper, cloth, selvage and a variety of narrow-gauge items in addition to gummed papers.



SELF-CLEANING FEEDERS AND CONVEYORS

A new line of vibrator-type feeders and conveyors, known as the Free-Flow feeders and conveyors, has been introduced by the Free-Flow Co., Hollywood, Calif. Features of the line are a positive action that insures a uniform conveying speed regardless of load and a patented balanced, pendulum construction which absorbs the shock of the mechanical-vibrating action and reaction of the machine. This self-cleaning conveyor is made to the user's requirements. It may be of any length using a single drive and is available with open or closed



troughs. The conveyor is said to operate efficiently and at low cost on a wide size- and type-range of materials.

SELF-ADHESIVE PAPER TAPE AVAILABLE

Topflight Tape Co., York, Pa., manufacturers of pressure-sensitive cellulose tape, announce the availability of self-adhesive printed paper tapes which, it claims, are less expensive than the cellophane or acetate fibre tapes. The pressure-sensitive paper tape is processed in rolls and in the same dispensers as the company's cellulose tapes.

CARTON FOR BEVERAGE INDUSTRY

United Board & Carton Corp., Syracuse, N. Y., announces a new bottle carton, called the paper-handle Duramatic, for the beverage industry that is said to reduce set-up time and handling costs for either automatic or hand-filling operations. The new carton features a unique automatic web lock that snaps easily into place to hold the container rigid and square

*—catch Pneumatic
in the act...*



...doing a
**"LOWER COST PER
CONTAINER" job**
for famed
COLGATE
products



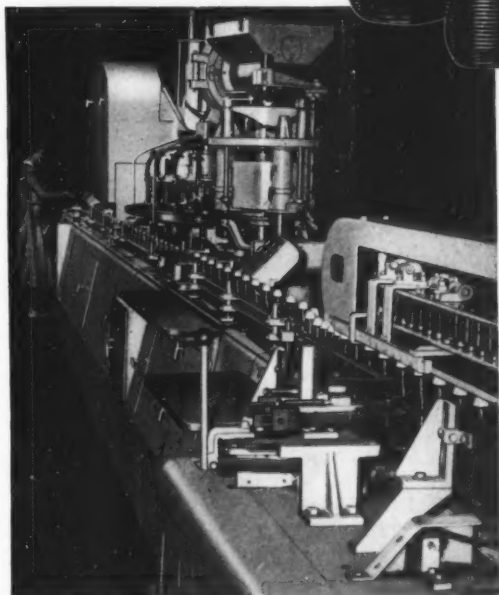
To production engineers, plant superintendents and top management alike, Pneumatic equipment in action is a pleasureable, profit making picture to behold.

That's the picture at Colgate-Palmolive-Peet Company where the latest high speed Pneumatic bottling lines clean, fill, cap and label the containers for Halo and Palmolive Shampoos, and Cashmere Bouquet Hand Lotion, too! That's the picture in so many of America's leading plants that it is obvious Pneumatic has "got something" no other equipment can match.

That "something" can be summarized simply as (1) Sounder basic engineering (2) Highly practical, yet imaginative and modern design (3) Precision construction. Result — smoother performance, longer wear — "lower cost per container" operation.

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Massachusetts. Branch Offices in New York, New York; Chicago, Illinois; San Francisco and Los Angeles, California; Seattle, Washington.

At right: Conveyor mechanism bottling line at Colgate's Jersey City plant. Similar Pneumatic equipment is operating at Jeffersonville, Indiana and Berkeley, California.



PNEUMATIC

PACKAGING AND BOTTLING MACHINERY



AT LAST!

**A MACHINE THAT
ATTACHES LABELS
and HEAT SEALS
IN ONE OPERATION**

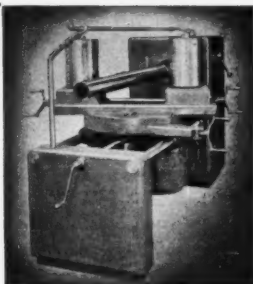
Label Seal-It is the first machine ever devised to eliminate the slow and costly hand operation of folding labels and placing over tops of bags before sealing.

It can be adjusted to secure a half-fold on a small tent-style label and, if desired, will also fold over top of bag before label is attached — all in one operation. Amazing production savings are now possible with this heavy-duty heat sealer with automatic phantom feed that speeds production. Label Seal-It can also be used interchangeably for ordinary heat sealing of bags without labels.

HEAT SEAL-IT CO.
4316 Lancaster Ave., Philadelphia 4, Pa.

WRITE NOW
FOR COMPLETE INFORMATION

**heavy
spiral
tube
winder**



Here's a superbly engineered and constructed machine for manufacturing fine cylindrical paper products. Tubes produced range from $\frac{3}{4}$ " to 13" I.D. and can have up to 30 plies or 1" wall thickness.

You'll be **TICKLED** to **TICKLE** this Winder. The Jerk is gone—**JOGGLE** the Clutch Bar and you'll be amazed how the Webs are eased into the wind.

You're out of the **JUNGLE** of Shafts, Motors, Drives and Belts when you thread this Winder. Walk around this Winder with surety and safety.

Send for full particulars

Machinery and Products Engineering Corp.

Paper Conversion Machinery

3630 Frankford Ave. Philadelphia 34, Pennsylvania

Equipment and Materials

(Continued)

through handling operations. It is made of solid white board suitable for all types of color printing. The bottom is double reinforced at both ends with flaps to provide extra strength during filling. The carton, treated to prevent water absorption and using a water-repellent glue to form a permanent bond, comes in two sizes: one for 7- and 8-oz. bottles and the other for 10- and 12-oz. bottles.

NEW ABRASION TESTER

A new abrasion wear tester has been introduced by the Taber Instrument Corp., North Tonawanda, N. Y., for use in the standard Taber abraser test. Both qualitative and quantitative wear results are obtainable with the Model 140 abraser. For



quality, a wear factor is calculated which represents the loss in weight per 1,000 cycles under specified test conditions. Quantitative or total wear of a specimen surface is indicated by a counter from the start of the test to the first sign of penetration. Both methods give a numerical result which is

directly comparable for different samples. The new Taber abraser incorporates the rotary rub-wear action of dual abrading wheels; the right wheel rubs the specimen from the center outward and the left wheel rubs the specimen from the outside towards the center so the abrasive lines cross each other.

AUTOMATIC ADHESIVE-CONTROL MACHINE

The Triangle Packaging Machinery Co., 6633-55 W. Diversey Ave., Chicago, introduces the "Visco-Mat," an automatic-adhesive control machine. The unit controls feeding of dehydrated adhesive from the hopper into water solution and maintains a constant check on the predetermined viscosity setting. It keeps a constant reservoir of ready-to-use liquid adhesive which ranges from several gallons to 100 gallons. The machine is equipped with a connection for hoses or pipes for drawing off the adhesive throughout the plant as well as a manual drain-off valve. The unit is said to reduce waste of materials and labor by eliminating trial-and-error mixing and extensive cleaning operations. Savings up to 60% on adhesives costs are claimed to be possible with this new automatically controlled unit.



FILLER FOR CORROSIVE LIQUIDS

Bottlers of corrosive liquids such as sodium hypochloride bleach solutions, etc., will be particularly interested in a new 20-head, fully automatic rotary liquid-filling machine introduced by the MRM Co., Inc., 191 Berry St., Brooklyn, N. Y. The filler is constructed of stainless steel and all non-metallic parts that come in contact with solutions are made of Lucite, Tygon and Koroseal. The exclusive design of the nozzles and spouts is a feature of the machine. The nozzles are made of stainless steel and the spouts are Lucite. A slip-fit collar on the nozzle holds the spot securely in place, yet makes it possible for the nozzle

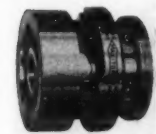
Equipment and Materials

Continued

zles to be removed for cleaning quickly, it is said. Designed with an overhead drive and a 50-gal.-capacity storage tank lined with Koroseal, the machine can fill fractional ounces up to gallons, according to the company.

CLUTCH CONTROL FOR OVERLOAD HAZARD

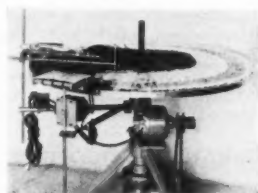
The Maxitorq overload release clutch, made by Carlyle Johnson Machine Co., Manchester, Conn., is designed for use by packaging-machinery manufacturers to protect the vital elements of a machine and to reduce bottle breakage, denting of cans, etc., resulting from accidental overloading of the machine mechanism. The clutch is specially recommended where the nature of the overload will be either a heavy shock or a suddenly applied, greater-than-normal driving load. It is not recommended for use on a main drive shaft to protect the various driving mechanisms, but rather to replace shear pins. It is connected to the driven or driving member by means of



overload release cups, but may be attached by hub, ring, flange or cut-off coupling types to suit the customer's conditions. In operation, the clutch automatically disengages when the overload occurs, stopping the machine, thus affording protection from costly shutdowns and product damage.

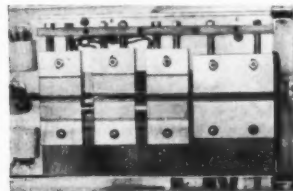
COOLER-STACKER FOR BAG-MAKING MACHINES

Clinton Packaging Machines, Clinton, Mass., has recently introduced a rotary Cooler-Stacker for use with bag-making machines that have front chute deliveries. Bags are taken from the bag-making machine after heat sealing and spaced on the revolving rotary table with the heat-sealed seams exposed to the air. Bags are cooled in about $\frac{1}{4}$ of a revolution, then stacked at an angle ready for inspection, removal and storage. Speed of the machine is variable and it is adaptable for bags ranging from 2 to 22 in. in length. It will handle various types of paper, cellophane, Pliofilm and plastic films, such as acetate, vinyl or polyethylene. One operator, it is claimed, can tend three bag-making machines so equipped.



NEW BAND-TYPE HEAT SEALER

Sav-Way Sara Seal, Inc., 30 Emery St., Detroit, has introduced a new continuous band-type heat sealer for homogeneous thermoplastic films. The new machine features zone heating, said to distribute the stress points evenly along the weld line, a quality which is claimed to eliminate defective, mashed seals. The zone consists of three pairs of opposing copper heating shoes. The lower bars are stationary and



the opposing shoes are floated, being held against the fixed shoes by springs. This permits the passage of materials of varying thicknesses. By adjusting the tension of the springs, it is

—DESIGNED—

FOR BETTER

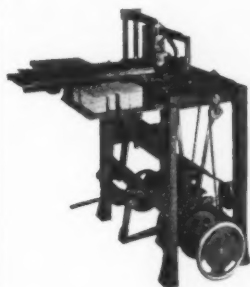
CARTON PACKAGING

All of the PETERS carton packaging machines have been designed with one thought in mind—to offer the packaging field the finest in carton packaging machinery.

Whether you package shortening, lard, biscuits, or even tacks, it will pay you to investigate the easy to operate economical packaging machines made by PETERS.

Besides the very versatile "Junior" models illustrated below, Peters has available for those with high production requirements, a "Senior" line of high speed packaging machines.

Send us samples of the cartons you are now using and we will gladly make recommendations to suit your requirements.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE (left) sets up 35-40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. If several size cartons are to be handled, machine can be made adjustable.

This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE (right) closes 35-40 cartons per minute, requiring no operator.



After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to handle several different size cartons.

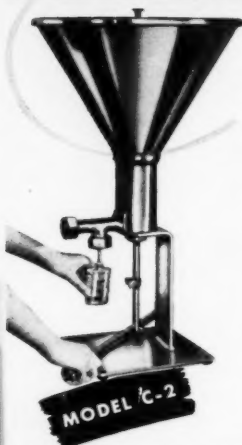
PETERS MACHINERY COMPANY

GENERAL OFFICE AND FACTORY

4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

Quicker, Easier

FILLING BOTTLES, JARS, TUBES, CANS



The Anderson Hand Filler is fast, easy to operate and strictly sanitary. It handles liquids, semiliquids, creams, pastes and greases. Hopper capacity, 5 gallons, quantities up to 16 ounces dispensed per stroke. Entire machine, except base plate, is stainless steel or nickel silver. Easy to clean. Rubber feet under base to prevent slippage. Filler (Model C-2-3) can also be supplied with foot treadle.

Send for Bulletin No. 6-29



ANDERSON BROS. MFG. CO., ROCKFORD, ILL.

Anderson Fillers

ROTOGRAVURE CYLINDERS

A Complete Service
All Under One Roof and
One Management Responsibility

- Cylinder Machining
- Copper Depositing and Polishing
- Photography and Art Work
- Cylinder Engraving
- Hard Chromium Plating

CHAMBERS-STORCK COMPANY, INC.

751 North Main Street
Norwich, Conn.

Equipment and Materials

Continued

possible to limit the finished thickness of the welded seal, thus preventing mashing of the material, it is claimed. A similar floating and stationary mechanism is used for the pressure-cooling zone; the two opposing water-cooled shoes almost simultaneously cool the softened material as it is brought by the endless steel belts from the heating zone. With the new Sav-Way triplex Sara Sealer, polyethylene is said to be sealed at 65 ft. per min. from 0.001 to 0.020 in. thick. A gradient seal is achieved due to the limiting adjustments on the heating shoes.

LABEL PASTER WITH SEMI-AUTOMATIC FEED

A new semi-automatic feed label paster is offered by the Potdevin Machine Co., 1285 38th St., Brooklyn, N. Y., which has an adjustable hopper to accommodate labels up to 5 1/8 in. wide. Operation of the machine is said to be simple and quick. A light touch on the feed actuating rod causes a single label to be fed through the machine automatically. The amount of adhesive applied to the label is controlled by a dial regulator. The machine may be mounted on a work table; it measures 7 1/4 by 11 1/8 in.



PACKAGER EXPANDS

A modernization and expansion program to equip its packaging department with the latest automatic and semi-automatic cartoners, automatic labelers, cottoning machines and tablet-counting fillers, etc., has been announced by the Arner Co., Inc., 303 Michigan Ave., Buffalo, N. Y., pharmaceutical chemists specializing in custom packaging. The company is now geared to handle minimum- and maximum-sized packaging of a variety of liquids, ointments, capsules, powders, pills and tablets, it is reported.

LIGHT-WEIGHT STEEL CHEMICAL CONTAINER

A new stainless-steel chemical container is offered by Steel Cooperaage Co., Division of Industrial Stamping & Mfg. Co., 4801 Bellevue Ave., Detroit, Mich. The Lee container, as it has been named, has a 15-gal. capacity and weighs 27 lbs. The top chime, which can be stamped with the user's name for permanent identification, has depressed hand-holds for ease in handling. The container cap is made of double construction, provided with wrench fittings and is permanently chained to the container.

COLOR-CONTROL INSTRUMENT

Printers of labels, cartons, papers, etc., will be interested in the photo-electric reflection meter (Model 610) manufactured by Photovolt Corp., 95 Madison Ave., New York, which can be used to help maintain desired color uniformity within a press run, across the sheet or from one press run to another. The precision instrument is designed to permit registration of minute differences in color and tone, according to the company. It is built as a compact portable unit to take the wear and tear of handling in press rooms. It consists of the instrument proper, containing the indicating galvanometer and the controls, and the "search unit" which comprises the light source and the photo-electric cell; this unit is connected to the instrument by a flexible cable so that it can be moved from one color area to another easily. The instrument is adjusted with the aid of a calibrated enamel plaque, using the standard set of three color

MODERN PACKAGING

blue

says "Buy Me"

PACK
TO
ATTRACT
IN

Maryland
Blue

Does your package do only half its job? Does it act only as a container? Or does it do a complete job as half container . . . half merchandiser?

Maryland Blue Glass excels in both these vital functions. Many famous name brands have proved through years of use that Blue acts as a powerful advertising, merchandising and selling tool. Blue gives your product an air of distinction and quality.

Blue is easier to see . . . easier to remember.

Blue displays your product in a way that says, "Buy Me!" So follow the lead of many famous brands . . . pack to attract in Maryland Blue.

Write for details and samples.



ALSO AVAILABLE IN
CLEAR GLASS

MARYLAND GLASS CORPORATION

BALTIMORE 30, MARYLAND



MIAMI WAXER

and WATER FINISH

Dilts built waxing and water finish equipment is fast, efficient, and the acknowledged leader. Highly flexible—designs varied to meet requirements. Eleven sizes—width, from 36" to 96". Available with The Kohler System for continuous unwinding with "flying paster" and winding with "flying starter." Other equipment for practically all converter processes and operations.

DILTS MACHINE WORKS

DIVISION OF THE BLACK-CLAWSON COMPANY, Inc.

FULTON, NEW YORK

ASK FOR BULLETIN (I-DM)



Controlled

NET WEIGHING

Model B scale filler with FL gravity flow feeder for fast accurate net weighing of free flowing products. Beans, rice, popcorn, coffee, grass seed, barley, salt and similar materials. The model B with 1 FK specified for non free flowing items.

The double spout discharge hopper permits handling hard to open cellophane

bags at speeds up to 45 or more 1 lb. bags per minute. Rated 4 ozs. to 3 lbs. with tolerance of 1/16 oz. to perfect.

Ask for our catalog No. 48 for this machine and many others operating in milligrams to 100 lbs.



WEIGH RIGHT AUTOMATIC SCALE COMPANY

JOLIET • ILLINOIS • U. S. A.

Equipment and Materials

(Continued)

filters furnished with the instrument. The three readings obtained then represent a full and permanent specification for the color. They also make it possible to indicate, by definite numerical tolerances, what color variations will be considered as being within the acceptable limits.

CRINKLED TRANSPARENT-CELLULOSE RIBBON

Transparent Package Co., 3520 S. Morgan, Chicago, introduces a new line of colored transparent cellulose ribbon for gift packaging called "Tubo-Ribbon." Available in 12 colors, the crinkled ribbon is treated to be flame-resistant, according to the company. It is marketed in spools of 27-in. lengths and in rolls 100 yds. long.

STOCK-MOLD SQUEEZABLE POLYETHYLENE BOTTLES

With the addition of the Plax Wide Mouth Square, the Plax Oval and the Plax Taper Round the series of stock-mold, flexible polyethylene bottles available from the Plax Corp., Div. Hartford-Empire Co., Hartford, Conn., now numbers six styles. The new styles are available in natural, opaque and semi-transparent colored polyethylene.

ALUMINUM INKS WITH COLOR

Color pigments have now been added to the line of aluminum inks produced by the Sigmund Ullman Co., Div. of Sun Chemical Corp., Long Island City, N. Y., under the name of "Silver-sheen." Twelve different colors are available in these inks, the formulation of which varies from 6 to 40% aluminum paste with the color pigments. According to the company, no special handling is necessary to print with these inks.

SIZED GOLD FOR HOT STAMPING

Users of hot-press stamped gold for package decoration report that the new low-cost 23K sized gold on a cellulose acetate carrier, developed and distributed by Hastings & Co., Inc., 2514 Market St., Philadelphia, does not curl and lies flat under the die in narrow and broad widths. The new product, named "Electroll No. 168," is said to give solid, uniform coverage—including heavily grained surfaces and stampings over ink—plus the permanent brilliance that heretofore was achieved only with beaten gold leaf. The sized gold is available in 100- and 200-ft. length, from 1/4- to 36-in. wide in multiples of 1/32 in. It is priced at \$2 per in. of width by 100 ft.

POCKET-SIZED STENCIL MARKER

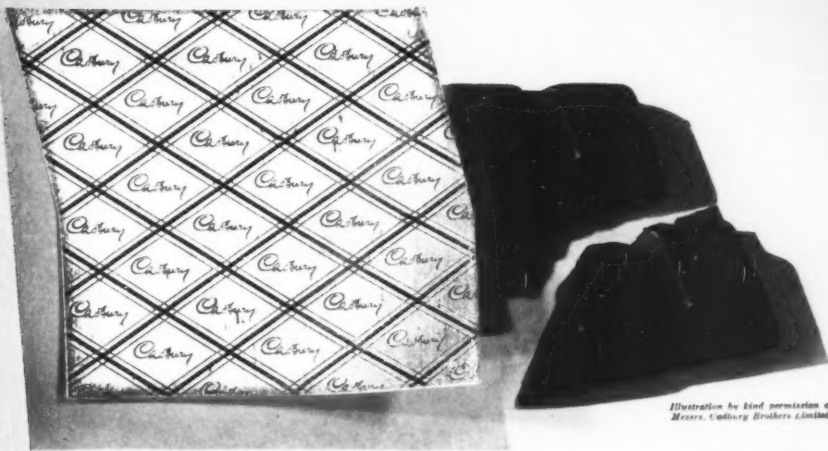
Speedry Products, Inc., 19 Rector St., New York, has introduced a new pocket-sized industrial stencil-making tool which has a felt pack to hold the ink supply that is said to eliminate flooding and sweating. Designated as the "59" Capax Stencil Marker, the tool is 1 1/2 in. in diameter and 8 in. long, including screw-on cap. It is available with any one of three replaceable and interchangeable nibs—round felt, wedge felt or round bristle.

AUTOMATIC LABELER AND CODER FOR VIALS

A completely automatic labeler and coder for vials or ampoules is being offered by the Potdevin Machine Co., 1285 38th St., Brooklyn. Five of the machines, which were invented by Francis C. Worth, have been in successful operation in the production laboratory department of Lederle Laboratories for a year, it is said. The new labeler is adaptable to vials of 1, 2, 3, 5 and 10 cc. sizes and a special attachment allows

A delicate flavour

BEAUTIFULLY PROTECTED



Renowned quality safely guarded against air, light and moisture by Aluminium Foil. Here is an example of a famous product presented in this perfect flexible wrapping. No other packing material carries the same irresistible sales appeal as Aluminium Foil, embossed or printed to your own requirements by experts with years of specialised experience. If you are preparing for the competitive years ahead you will be wise to protect your product beautifully

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Aluminium **FOIL**



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Use PERMASLIP

on your
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Avoid

- Pile-up
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- Browning
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For better and faster packaging, Use PERMASLIP
THE DOW CORNING SILICONE RELEASE
AGENT FOR HEAT SEALING EQUIPMENT

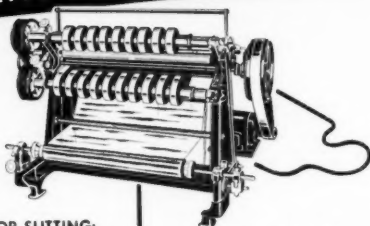
DOW CORNING CORPORATION, MIDLAND, MICHIGAN

ATLANTA • CHICAGO • CLEVELAND • DALLAS • LOS ANGELES • NEW YORK
Canada: Fiberglas Canada, Ltd., Toronto Great Britain: Allright and Wilson, Ltd., London



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with the 1950 RAZOR BLADE
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BEST FOR SLITTING:
Plastic Laminates
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Cellophane
Glassines
... and numberless
other materials

By the Makers of the Famed
Automatic Roll Sheet Cutter

For clean quick cut-
ting, for edges of un-
excelled smoothness
... its rock-bottom
first cost with unbe-
lievably low mainten-
ance mean razor-
sharp cutting.

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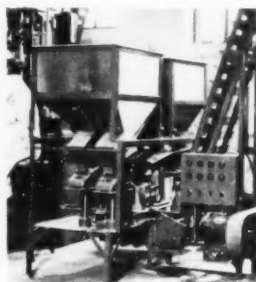
Equipment and Materials

(Continued)

for simultaneous coding. The portable unit weighs only 45 lbs. and measures 26 in. by 10 in. by 20 in. high. Uncoated labels are held in an automatic feeder and the vials or ampoules are fed through the labeling machine from a hopper. Production tests have been said to show a rate capacity of 46 vials per min. and it is claimed to label more vials in one hour than can be done by hand in one day.

NET-WEIGH SCALES FOR HARD-TO-HANDLE ITEMS

Counsel Machine Co., P.O. Box 25, No. Hackensack, N. J., announces a net-weighing machine, called the Robo-Scale, for use as an accessory to automatic packaging machines which formerly employed only volumetric or gravity feeds. With the new scales, it is possible to adapt the gravity-type feed machines for packaging hard-to-handle items such as crackers, gum candies, pretzels, etc., with greater accuracy and less breakage. All scales employ a fast feed, dribble feed and cut-off for maximum accuracy. The Robo-Scale uses a Robo-Lift bucket elevator as a conveying means. Four scales, said to give an average of 50 to 60 packages per min., are mounted on a platform straddling the lower horizontal run of the elevator. These scales are synchronized to net weigh simultaneously into four buckets which are tipped mechanically into two chutes, the product being carried by these chutes to the packaging machine. The Robo-Scales may be timed to synchronize with the bag-making and sealing machine.



VIAL- AND BOTTLE-FILLING EQUIPMENT

The "PerfeKtum" ampoule-filling and sealing machine, Model TC-2, has now been modified so that it can also be used to fill small bottles and vials automatically, according to Popper & Sons, Inc., 300 Fourth Ave., New York, manufacturer of the equipment.

CUSTOM MOLDER DEVELOPS SPECIAL PROCESS

Tut, Inc., Auburn, N. Y., is now making custom-molded plastic packages and forms by its new "Tuformit" process—a steam-table heating method that is said to produce uniform packages without checks or line marks. Other advantages of the process from the standpoint of package appearance, according to the company, include excellent clarity, particularly when transparent plastics are used, obtained by the use of plastic sheet stock processed in fibre molds; superior strength, toughness and smooth surface because of the heating method. The company also reports that the process makes small package runs economic because the usual heavy expense of the initial molds has been practically eliminated.

FIBERGLAS YARN FOR REINFORCING PAPERS

A non-woven scrim fabric of Fiberglas yarns for reinforcement of papers for a variety of uses was announced recently by the Owens-Corning Fiberglas Corp., Toledo, Ohio. The fabric, placed between two sheets of kraft paper and bonded together with asphalt or other adhesive, is said to give uniform high strength, less weight per ream of paper resulting in savings in

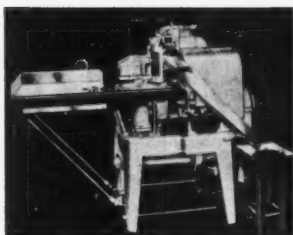
Equipment and Materials

Continued

labor and transportation, resistance to moisture, more flexibility in the finished paper and improved bond. It is expected that the new fabric will find wide application as reinforcements for crate and box inner liners, wrapping papers, paper or foil-faced insulation blankets and the like. The fabric is available in a variety of constructions, in widths of 36 and 48 in. and in rolls of 1,000 to 5,000 yds.

NEW ENGLISH WRAPPER FOR HARD CANDIES

Package Machinery Co., Springfield, Mass., exhibited a new English-made Forgrove 22-B hard-candy wrapping machine at the Confectionery Show (June 5 to 9), Grand Central Palace, New York.



The new machine is designed to wrap a wide range of hard candies in various sizes and shapes, using heat-sealing cellophane, waxed paper, glassine or reinforced foil. It will make twist, fringe, sachet, crimp, rat-tail and pop wraps. Size changes, it is claimed, can be

made in 10 min. with adjustment of a single knob. Maximum size of wrapper is 4 1/2 by 3 3/4 in. and minimum is 1 1/2 by 1 1/2 in. Speed is said to be 160 pieces per minute. The new machine is said to offer many advanced features such as: almost completely enclosed moving parts, greater strength, simplification and flexibility, and less damage to candies.

WATER-REPELLENT GROCERY BAG

Union Bag & Paper Corp., 233 Broadway, New York 7, N. Y., introduces the "Alligator," a new water-repellent grocery bag. This specially treated bag is claimed to be the answer to the problem of point-of-purchase bagging of wet merchandise. The bags are packed in 100-unit dispensers for display.

CONTRACT PACKING PLANT OPENED

Miller-Phillips Packing Corp., 2985 Folsom St., San Francisco 10, Calif., announces the opening of a contract packing division. The plant is equipped for packing dry food and speciality items under private label in cellophane or cartons ranging in size and weights from 1/4 oz. to over 5 lbs.

NEW GUMMED PAPER AVAILABLE

Dennison Mfg. Co., Framingham, Mass., reports that orders are now accepted for gummed Kromekote paper. The company will stock Kromekote, Champion Paper & Fibre Co.'s cast-coated paper, on a 60-lb. sheet in both white and ivory. Non-blocking, dextrine and No. 23 heat seal are stock gummings on the white. Ivory is stocked with non-blocking gummings. Other stock and gumming combinations are available on a made-to-order basis.

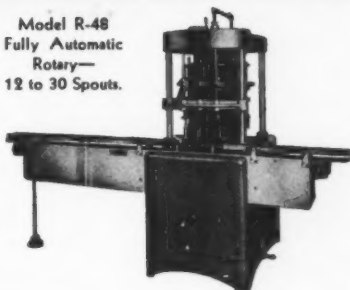
BERRY BOXES OF PLASTIC

Quart-sized berry boxes of Lustrex styrene plastic are being made at Monsanto Chemical Co., Plastics Div., Springfield, Mass. Lattice construction of the boxes is said to preserve freshness of fruit by allowing greater ventilation. The boxes—available in white, crystal or colors—may be used as colanders and are also being used to package cookies and mushrooms.

LIQUID FILLING MACHINES

Simple design for low cost maintenance!
Precision engineered for high efficiency!

Model R-48
Fully Automatic
Rotary—
12 to 30 Spouts.



- For all types of foamy and still liquids.
- Variable speed drive.
- Automatic overflow (no waste).
- Quickly adjustable to fill all sizes and shape containers from 1/4 ounce up to one gallon.
- Fills sprinkler top glass, open top cans, etc.
- Automatic intake and discharge conveyors.
- Production from 120 to 250 fractional ounces per minute (based on water). Other sizes proportionately.

Write for Catalog No. 22

mrmm company, inc.

191 Berry Street
Brooklyn 11, New York

Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment.

Color Decorating on all materials

SILK SCREEN OFFSET

It's magic ... the way colorful decorating steps up the sales punch of your plastic, glass, metal and wood packages. By using either silk screen or offset methods to decorate your packages, Modern Decorating can help move them into the "best-seller" class.

Important, too—your decoration, as performed by Modern, is inexpensive, lasts for the life of the package. Colors are bright, lettering is sharp and clear.

Write for quotations and details.

MODERN DECORATING COMPANY

4914 Hudson Blvd., West New York, N. J.
Phone: UNION 3-5587 Longacre 4-1998

Plants & People



General Lucius D. Clay, formerly commander of U. S. forces in Europe and military governor of the U. S. Zone, has been



L. D. Clay

elected chairman of the board of directors and chief executive officer of **Continental Can Co., Inc.** General Clay succeeds **Carle C. Conway**, who resigns after having served as chairman since 1930. Mr. Conway became vice president and a director 37 years ago and will continue on the board of directors and as chairman of the executive committee.

The appointment of **H. M. Blinn** as assistant division sales manager for the Pacific Div. has been announced. **Ralph J. Campiglia** succeeds Mr. Blinn as sales manager for the San Francisco District. The Plastics Division, Cambridge, Ohio, announces the appointment of **Gerald S. Trenbath** as a sales representative responsible for the sale of point-of-display material. His headquarters will be in Continental's New York office.

Continental's new Pittsburgh plant, one of the largest for producing metal containers, is now in operation. The plant will manufacture both flat-top and cone-top beer cans, oil, paint and grease cans, welded-steel pails and drums, and crown caps.

The **U. S. Printing & Lithograph Co.** announces the opening of a sales office at 315 W. Ninth St., Los Angeles. **Robert W. Denecke** will be in charge.

Personnel promotions and changes in the sales, manufacturing and purchasing

departments have also been announced. **J. S. Bond**, vice president, has been placed in charge of all midwestern manufacturing activities. Sales activities for that district have been combined under the direction of **Gerald Murphy**, manager of sales. **Raymond P. Kane** has been appointed director of purchases of the **U. S. Printing & Lithograph Co.'s** Central Purchasing Dept. in Cincinnati.

Goodyear Tire & Rubber Co.'s General Products Division has announced that **Charles P. Joslyn**, manager of the division, has resigned to enter business for himself.



C. P. Joslyn

Milprint, Inc., Milwaukee, Wis., has appointed **Harry Homer** to represent its Meat Packaging Division in the New England and Atlantic Coast areas. Mr. Homer will operate from the Philadelphia office at 57th and Lancaster Ave.

Promotion of **W. E. McWhorter** to advertising manager of **Owens-Illinois Glass Co.'s** Kimble Glass Div. and American Structural Products Co., an Owens-Illinois subsidiary has been recently announced. Mr. McWhorter has been associated with the company since 1944.

Ted Anderson has been named manager of the New York sales office of Kimble Glass and **I. R. Norton** has been promoted to service manager of the New York branch. **Edward T. Derr** will replace Mr. Norton in the Kimble Glass Sales and Service Control Div. in Toledo.

Edward A. Randlett, former Baltimore branch salesman for Owens-Illinois Glass Co., has been named Western region closure and plastics sales manager with headquarters in the Chicago branch at 121 W. Wacker Drive. Mr. Randlett will be succeeded in Baltimore by **William J. Thompson**, who had formerly been in the Pittsburgh branch office as salesman.



McWhorter

The **H. G. Weber Co.** has commenced construction of another addition to its main plant and office in Kiel, Wis. The addition will house new engineering quarters, office space and additional shop facilities for assembly.

Ames Gardner, **William E. Gardner**, **G. Corson Ellis** and **C. Chester Guy** have been elected board members of the **Gardner Board & Carton Co.**, Middletown, Ohio. Newly elected vice president is **Robert B. Gardner**.

Also announced are the appointments of **Andrew J. Westendorf** as superintendent and **J. Shartle Brookover** as general superintendent of the company's **Lockland Paperboard Mill**.

Union Bag & Paper Corp., New York, announces the appointment of **Sidney K. Bradley** as director of multiwall bag sales. Mr. Bradley, who joined Union Bag in 1938, was formerly assistant director of multiwall bag sales.

C. L. Reynolds has been named control manager for **Union Bag & Paper Corp.** Mr. Reynolds succeeds **W. A. West**, who is resigning from the company.

Lee Turley, vice president in charge of sales of the **McLaurin-Jones Co.**, Brookfield, Mass., manufacturers of gummed, coated and specialty papers, has been elected to the board of directors.

Raymond E. Stoltz has been appointed general sales manager of the **M. D. Knowlton Co.**, Rochester, N. Y., manufacturers of paper-tube and box-making machinery. Mr. Stoltz has been with Knowlton since 1908 and managed the company's New York office since 1931.

Federal Adhesives Corp. announces the new location of its plant and laboratories at 210 Wythe Ave., Brooklyn.

Wilson H. Madden has been appointed New York district sales manager for the **Edwin J. Schoettle Co.**, Philadelphia. Mr. Madden will have headquarters at the company's office at 250 Park Ave.

Areco Machine Co., Inc., New York, celebrates its 25th year as a manufacturer of packaging machinery for the cigarette, milling and pharmaceutical industries in the U. S. and foreign countries. **Roy Johnson**, president of Areco, has been with the company since its inception.

Robert H. Evans has been elected treasurer of the **Riegel Paper Corp.**, New York, and will also continue to serve as secretary.

John Waldron Corp. of New Brunswick, N. J., has acquired the **Meadows Machine Works** of South Kearney, N. J. Both companies manufacture machines used in the converting of paper, textiles and plastics, and the products of both companies are used through the industries for web processing operations at

COLE PROMOTED

Alan S. Cole, general manager, has been named vice-president of all Breskin publications and affiliates, according to an announcement by **Charles A. Breskin**, president and publisher. The Breskin organization includes **MODERN PACKAGING**, **Modern Packaging Encyclopedia**, **Modern Plastics**, **Modern Plastics Encyclopedia** and **Industrial Magazine Service**. Mr. Cole, who joined the organization in 1932 as manager of the Chicago office, will continue to serve as general manager, a post which he has filled for the last 15 years.

Creative Package Design



this corrugated "luggage" box

Displays the product . . . suggests itself as a gift . . . prompts the purchase . . . simplifies the sale . . . encourages "take-with" buying . . . eliminates repacking and rewrapping . . . offers re-use value . . . is adaptable to mailing. Give your product package action to make it stand out above competitive merchandise. Consult Hinde & Dauch, Executive Offices, 5004 Decatur St., Sandusky, Ohio.

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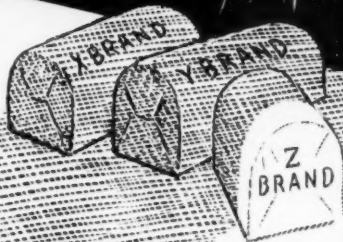
HINDE & DAUCH
Authority on Packaging

DO YOU MANUFACTURE GIFT ITEMS? Write for colorful, beautifully illustrated booklet, "Setting the Stage for Holiday Merchandising," outlining the secrets of increasing sales through corrugated gift boxes.



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Plants & People

(Continued)

high production rates. All patents and drawings of Meadows Machine Works have been assigned to the Waldron company and William J. Cullen, founder and general manager of Meadows, has joined the Waldron organization in an official capacity.

C. J. Backstrand has been elected president of Armstrong Cork Co., Lancaster, Pa. He succeeds H. W. Prentis, Jr., who is now serving as chairman of the board. Kenneth O. Bates was named executive vice president. Other officers in the firm were re-



Backstrand

-elected and M. J. Warnock, company treasurer, was elected vice president. Before his retirement as president, Mr.



Prentis, Jr.

Prentis announced that construction of new laboratories for industrial research and development would be started on a 40-acre site four miles west of the home offices in Lancaster. In addition to the main laboratory building, several pilot plants and a boiler plant will be built.

Two appointments in the Aluminum Division of Reynolds Metals Co., Louisville, Ky., have been announced: F. F. Tiffany, formerly district manager of the company's Dayton, Ohio, office, is now division manager in the Pittsburgh area, with headquarters in the Pittsburgh field office; T. D. Lewis is now division manager in the Atlanta office, having been transferred from San Francisco.

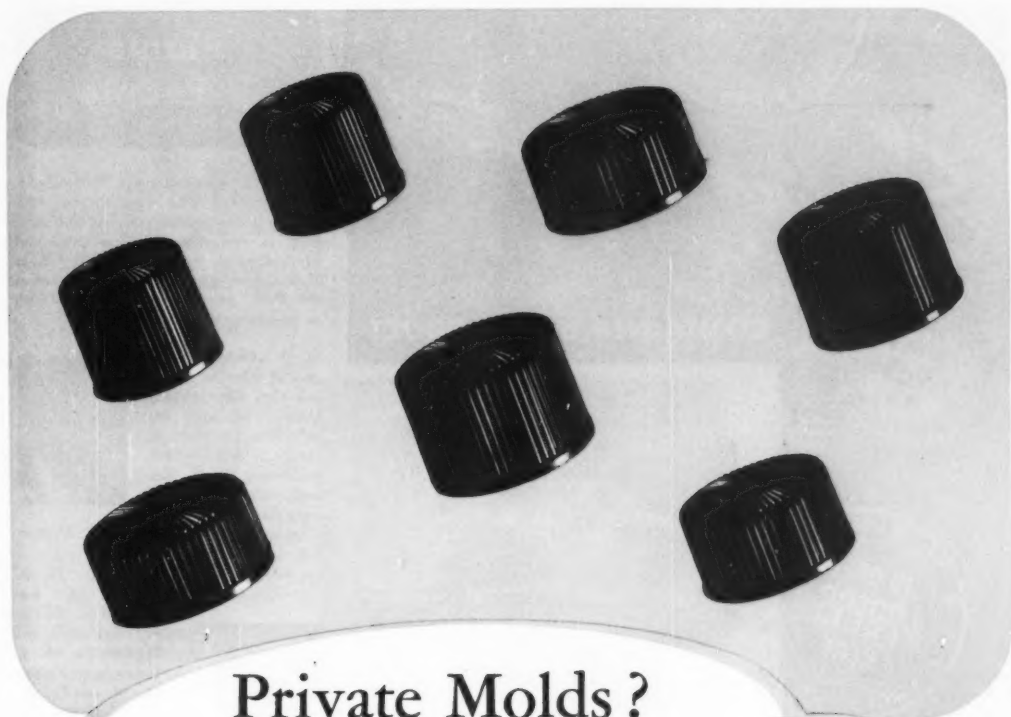
Shellmar Products Corp. announces the promotion of W. C. Curtis to assistant sales manager of the Shellmar Division at Mt. Vernon, Ohio. Mr. Curtis will be responsible for the administration of sales department procedures and will work under the direction of R. L. Lee, general sales manager.



W. C. Curtis

General sales office of the Sylvania Div., American Viscose Corp., will be moved from its present location in New York

MODERN PACKAGING



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Many people think that Armstrong's K-Design Caps are private molds the first time they see them. These pictures will help to explain why.

K-Design Caps are as distinctive as private molds. They perform just as well. They're made to rigid dimensions. And—they're very reasonable in cost.

You can get these stock mold caps in many brilliant, non-fading colors. Sizes range from 8 to 22 mm. Short skirts, KS; 8, 10, 13, 15, and 18 mm. Medium skirts, KM; 18, 20, and 22 mm. Long skirts, KL; 13 and 15 mm. Additional sizes will be produced soon. Your Armstrong representative can show you samples, prices. If you want more information, write Armstrong Cork Company, Glass and Closure Division, 5906 Prince Street, Lancaster, Penna.



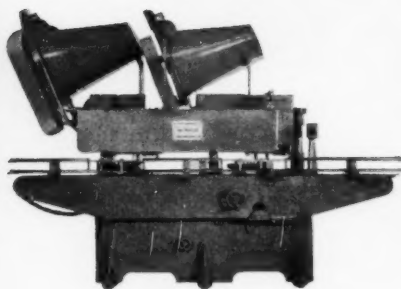
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UPRESSIT CAPS APPLIED BY RESINA FULLY-AUTOMATIC MACHINE

Applying, closing and crimping of Upressit Caps and tamper-proof bands can now be accomplished with the Resina fully-automatic machine. This machine seals containers from the ½ pint to two and one-half gallon size as fast as the filling machine delivers them, at rates up to 4000 per hour.

Customers are familiar with the many advantages of Upressit Caps . . . no leakage . . . no evaporation . . . no staleness. No difficulty in opening package. No tools required. Just snap cap off with mere finger pressure . . . reseal it, air-tight, with thumb and two fingers.

For further information on the Resina fully-automatic machine . . . semi-automatic equipment . . . hand-tools . . . or Upressit Seals and Over-seals, write . . .

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Plants & People

(Continued)

City to 1617 Pennsylvania Blvd., Philadelphia 3, Pa. The move is in accordance with the general policy of the company to centralize their executive and administrative operations. The New York district sales office will continue at 350 Fifth Ave. and will function with its present personnel.

M. P. Cortilet, manager of sales for American Can Co.'s Central Division, has been elected vice president in charge of that Division, succeeding G. H. Kellogg, who has retired after 43 years with the company. Mr. Cortilet will continue to make his headquarters in Chicago.



M. P. Cortilet

D. B. Carver, assistant manager of sales, has been named to fill the position formerly held by Mr. Cortilet. F. J. Green has been named manager of manufacture for the Atlantic Division. Mr. Green, who has been the assistant manager, succeeds R. F. Hepenstal, recently named assistant general manager of manufacture for the company.



G. H. Kellogg

American Can Co. announced the opening of new headquarters offices, at 100 Park Ave., New York.

American Can has announced plans for building a new manufacturing plant on the outskirts of Chatham, Ont., to serve that area. The plant will occupy approximately 185,000 sq. ft. of floor space and production is expected to begin in January, 1951.



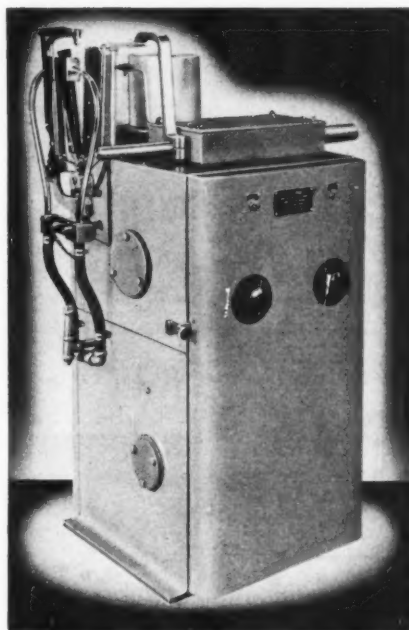
D. B. Carver

Theodore Mannon has been appointed New York City sales manager for the Dixie Cup Co., Easton, Pa. Mr. Mannon replaces Albert Smith who has been appointed sales manager in charge of fountain sales to chain stores.

The Globe Co., Chicago, manufacturer of meat packing machinery and equipment, has recently acquired the Knapp Mfg. Co., Los Angeles, manufacturers of the Knapp-Wrapp wrapping machine. Kenneth Knapp, president of the Knapp company, has been retained as consult-

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Packaging Show

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● Machine rate—Ability to meet all standard production-line requirements

● New Oto-Pak coordinates with any standard filling equipment

● New Oto-Pak will convert all thermoplastic heat sealing films from roll to complete heat sealed containers

● Converts POLYETHYLENE and PLIOFILM

● Oto-Pak will package all wet or dry products, from formaldehyde to pipe fittings

● Oto-Pak eliminates scrap—maximum seal bead is four times mil thickness of film. All costly folds and overlapped seams no longer necessary

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If you saw OTO-PAK in operation at the show, let us substantiate the things we told you about it.

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World's only filler featuring tube cleaning and cap tightening in a single station.

Fills, closes, seals and codes up to 55 tubes per minute. Easily cleaned—only stainless steel and Monel used in parts contacting the material filled.

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- Turret attachment for filling jars
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Plants & People

(Continued)

ing engineer and Edward Johnson, also formerly with Knapp, has been employed by Globe as sales engineer. All Knapp patents have been assigned to Globe and manufacture and distribution of Knapp-Wrapp machines will be started in Chicago under the name Globe-Knapp.

Construction of an applied research laboratory for the B. F. Goodrich Chemical Co. will commence next month. The new building will cover 17,500 sq. ft. and will provide facilities for an expanded customer technical service and further materials and process research.

Alvey Conveyor Mfg. Co., maker of package conveyor systems, has moved its plant to a new location at 9301 Olive St. Rd., St. Louis, Mo., and is now in full production.

Celluplastic Corp., 50 Avenue L, Newark, N. J., manufacturer of Clear-site plastic containers, announces the names and territories of four new representatives: H. R. Gayden Co., P.O. Box 4475, Jackson, Miss., for the state of Mississippi; N. T. Floge, 406 Peters Bldg., Atlanta, Ga., for Georgia and South Carolina; W. J. Ready of Ready Sales, 16-20 S. 17th St., Richmond, Va., for Virginia, West Virginia, North Carolina and Washington, D. C.; James B. Keller, P.O. Box 4188, Houston 4, Tex., for Houston and Galveston, Tex.

Frank G. Karslake, Chicago branch manager, has been elected a vice president of the Forbes Lithograph Mfg. Co., Boston.

John J. Pardy has been appointed assistant to the general manager of the cap seal division, Irvington Varnish & Insulator Co., Irvington, N. J.

Standard Cap & Seal Corp., New York, has acquired all rights to a new process for the production and vacuum packaging of sliced luncheon meats and like products which was developed by the Rancho Granada Co. of Los Angeles. This process, which was described in an article in the May issue of MODERN PACKAGING (p. 99), includes special equipment for the cooking and molding of luncheon meats, slicing equipment which will deliver a product sliced to a predetermined weight, efficient, simple bag-envelope loading equipment and automatic vacuum-sealing equipment.

Transparent Fabricators, Inc., a new firm for the manufacture of transparent plastic boxes, has been organized and will have offices at 220 Fifth Ave., New

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Plants & People

(Continued)

York. The new firm claims to have devised a revolutionary method for fabricating rectangular boxes and box covers from sheet plastic film, using fully automatic machinery. **John H. White** will be in charge of manufacturing and **Erwin Scharf** will handle sales.

W. F. Boyer, Sr., has been appointed manager of the **Foil Division, Kaiser Aluminum & Chemical Sales, Inc.**, Chicago. Mr. Boyer was previously with the **Reynolds Metals Co.** in New England and Washington, D. C.



W. F. Boyer, Sr.

Bemis Bro. Bag Co., St. Louis, Mo., announces the appointment of **R. B. LeRoy** as sales manager of its multiwall paper bag plant in East Pepperell, Mass. The position vacated by Mr. LeRoy as head of the Paper Control Laboratory in St. Louis will be filled by **Arthur R. Ewing**.

Mid-States Gummed Paper Co., Chicago, has announced the appointment of **Robert Dale** as sales director of its New Products Division. **Walter Pahl** has been named director of laboratory research and quality control.

New York sales office of the **Plax Corp.**, Hartford, Conn., is being moved to 630 Fifth Ave.

W. Frank Cornell has been elected divisional president of the **International**



W. F. Cornell

Printing Ink Div., Interchemical Corp. Mr. Cornell, who was divisional manager of the eastern district, succeeds the late **R. W. Smith** who died suddenly last month. **F. Jack Jeuck** has been appointed divisional executive vice president for the Western district and **W. N. Davies**, former New York branch manager, has been named divisional vice president in charge of the Eastern district.

John T. Hargrave succeeds Mr. Davies as manager of the New York branch of **IPL**. **Joseph A. Quigley**, divisional president of **In-Tag Division of Interchemical, manufacturers**



W. N. Davies

CUSTOM LAMINATING AND COATING

**Films, Foils,
Fabrics, and
Papers for
all purposes
Plus
these Standard
Products**

FUNCTIONAL:

Heat Sealing Foils
Heat Sealing Tapes
Barrier Materials,
Greaseproof
Barrier Materials,
Moisture vapor proof
Jar Cap Liner
Electrical Insulation
Laminated Foil and
Board
Locker Paper

DECORATIVE:

Foil Paper, colored
and embossed
Acetate to paper
in colors
Leatherette

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PACKAGE
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*new and
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FROZEN FOODS,

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DRUGS, TOBACCOS, ETC.

1. Makes gas, liquid, and grease-tight packages on high-speed equipment.
2. May be hermetically heat-sealed.
3. Protects against light, loss of flavor, contamination.
4. Low moisture vapor transfer.
5. Inexpensive.
6. Can be cooked or sterilized after packaging.
7. Printable.
8. Completely inert, non-toxic.
9. Odorless and tasteless.
10. Very high ratio of seam and body strength to weight.



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Plants & People

(Continued)

of gravure printing inks, has been elected a director of the corporation.

Dr. Paul J. Hartsuch, formerly a research chemist with the Lithographic Technical Foundation, has joined the International Printing Ink Division. Dr. Hartsuch will work in the Western Division with the sales force to help lithographers with their problem.

Interchemical Corp. consolidated all of the firm's major executive offices and staff functions in one building at the Northeast corner of 44th St. and Sixth Ave., New York. Included in the new quarters are the executive offices, divisional executive offices of International Printing Ink and the In-Tag Division; the Interchemical Finishes Metal Decorating Sales and Service and Standard Coated Products Division; the Foreign Department.

Cellotape Printers is the new name of the recently re-organized company formerly known as the Printed Pressure Tape Co. The organization, now headed by Prentiss I. Cole as president and Wendell P. Dubbs as vice president, has moved from Redwood City to Palo Alto, Calif.

Plans are under way by the Sherman Paper Products Corp., Newton Upper Falls, Mass., for a branch factory in the Chicago area. The new factory will produce Corroflex flexible corrugated packing material and corrugated specialties for the baking and biscuit industries.

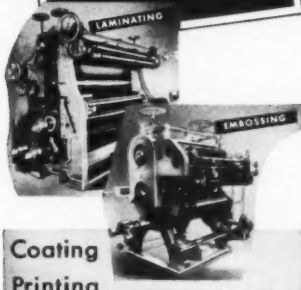
Thomas Laufer has been appointed art director of Oscar Mayer & Co. His headquarters will be in Madison, Wis. Before joining Oscar Mayer & Co., Mr. Laufer was with Raymond Loewy Associates and the McArthur Advertising Corp., New York.

Morningstar, Nicol, Inc., New York, and their subsidiary, Paisley Products, Inc., jointly announce the appointment of Oscar W. Westerlund and W. C. Brown as assistants to the general sales manager, Earl C. Lenz. Both men will make their headquarters at the Paisley Chicago plant.

The Packaging Division of The E. F. Schmidt Co., Milwaukee, Wis., printers and lithographers, announce the appointment of John H. Cofrin to their Milwaukee sales staff.

Nashua Gummed & Coated Paper Co., Nashua, N. H., announces the election of Robert A. Brown as executive vice

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you can get more speed
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You can benefit from the long, specialized experience of our research and engineering staffs along with the facilities of our complete testing laboratory. Write for literature pertaining to your problem.

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CORPORATION
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Building Machines Since 1827

Plants & People

(Continued)

president. **Robert H. Prew**, assistant manager of manufacturing, has been added to the board of directors.

The Ohio Boxboard Co., Rittman, Ohio, has elected **Melvin E. Barthen** vice president and **Robert E. Young** secretary. Also announced is the appointment of **S. F. Allison** as corrugated sales manager for Rittman Sales.

The Oxford Paper Co., New York, announces the appointment of **Harold M. Annis** as manager of product development and sales service.

G. L. DuBois is now Southern representative, with headquarters in Atlanta, Ga., for **Kimberly-Clark Corp.**, Neenah, Wis.

Purchase of a new plant in Meriden, Conn., by the **Muirson Label Co., Inc.**, was announced recently. The new plant, covering 60,000 sq. ft. of floor space, is part of an expansion program for coast-to-coast label-production service.

Charles W. Kaufman has been named to succeed the late **T. M. Rector** as head of the **General Foods Dept. of Research and Development**.

Irving Hefter has been appointed sales manager for the area surrounding Chicago for the **Stone Container Corp.**, makers of corrugated boxes.

Robert W. Lea, president of **Johns-Manville Corp.**, has been elected a member of the board of directors of **Olin Industries, Inc.**, East Alton, Ill. Also elected to the board was **F. S. Elfred**, general manager of the **Explosives Div.** of **Olin**.

Leroy L. Salfisberg, general manager of the **Ivers-Lee Co.**, Newark, N. J., died on April 21, 1950. Mr. Salfisberg was the inventor of the **Sanitape-Sealtite** method of packaging and created and developed numerous other specialized, patented machines for packaging.

Delmar C. Eldredge, Eastern division sales manager of the **Fibre Drum Sec.**, **Continental Can Co.**, died on April 5 as a result of an automobile accident near **Elizabeth, N. J.**

NEW KRAISSL AIR PUMPS for SUCTION and PRESSURE



Eliminate Oil Vapors from Discharged Air

The new Kraissl Class 23 pumps completely eliminate undesirable oil vapors from discharged air. In many operations, this means a tremendous saving to you—in time, materials and industrial health. Pumps are dry lubricated—displacement blades take up their own wear. Positive, fan-cooling for continuous high performance. Available with double extended shaft for group installations from single power source. Performance data: 1750 RPM, but not limited to this speed. Capacities from 5 cfm—20 cfm, for single units; larger capacities by group drive.

Kraissl Class 23 pumps are specifically designed for all packaging and printing machinery; and similar applications where air pressure or suction, without discharge oil, is preferable.

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Reduces box inventory to almost nothing.

Makes the size boxes you need when you

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BOX OR LABEL PRINTING. Detailed information is given on the Model 105-10 heavy duty machine for box or label printing. Machine prints one line only up to 10 1/4 inches in length. Illustrations included. Markem Machine Co. (6-700)

CONVEYOR. Given are the features of the Robo-Lift standard conveyor embodying an automatic feed. Information is also included on the operation of the conveyor in connection with other packaging equipment. Illustrated. 4 pages. Counsel Machine Co. (6-701)

WRAPPING MACHINE. Cost comparisons on 10,000 heads of lettuce wrapped on the Form-A-Wrap along with illustrations are provided. Triangle Package Machinery Co. (6-702)

FLEXKIN. The flexible sheet moisture vapor barriers Flexkin used in packaging are discussed. Prices and samples are included. Acme Backing Corp. (6-703)

POCKET-SIZE OFFSET COLOR GUIDE. Plastic bound book showing 59 offset colors on coated and uncoated stock, six specimens offset bond inks and one offset silver. IPI Div., Interchemical Corp. (6-704)

STAYING MACHINE. The Knowlton No. 75 and various other staying machines are discussed in detail. Specifications, illustrations, and information on small box anvils and dies for extension-edge box staying is included. 8 pages. M. D. Knowlton Co. (6-705)

SILVERSTITCHERS. Various Silverstitchers are described with their specifications, advantages, features, and illustrations. Also given are the advantages of Silverstitching. 12 pages. Acme Steel Co. (6-706)

MAGICAST DISPLAYS. Presented are illustrations and a description of Magicast displays which seem to turn and follow the viewer's eye. 4 pages. Consolidated Lithographing Corp. (6-707)

HYDRAULIC CONTROL HOSE. Catalog sheet listing many of the recommended uses for this type hose, made with special wire braid to give greater toughness and flexibility. A method of calculating correct bending radii for various hose sizes is provided. The B. F. Goodrich Co. (6-708)

FLOUR PACKING MACHINE. The sequence of operation, safety devices and equipment, specifications, features, and illustrations of the Arenco Type VUM flour packing machine are given. 4 pages. Arenco. (6-709)

PREPACKAGED CHEESE. Brochure lists advantages of cheese prepackaged in Pliofilm (rubber hydrochloride), how to do it, and how it boosts sales. 4 pages. The Goodyear Tire & Rubber Co. Inc. (6-710)

GLASSINE SAMPLE BOOK. Folder containing samples of 21 glassine, greaseproof, waxed, coated and foil-laminated packaging papers. A chart assists in the selection of the proper paper. Riegel Paper Corp. (6-711)

PACKAGE EVALUATOR. Given is a formula for evaluating consumer packages on the basis of appearance factors, functional factors, consumer factors, and psychological factors. Monsanto Chemical Co. (6-712)

LABELING AND COMBINING CEMENT. Laboratory report giving the properties, purpose, qualities, application, and outstanding features of product 1707 developed for labeling and combining cement. Paisley Products, Inc. (6-713)

CLOSURES AND SEALING MACHINES. Information is given on the seal, adaptability, factory advantages, and consumer advantages of Anchor caps. The Anchor Steriseal machine, 16 Spindle Rotary sealing machine, and 4 Head Rotary sealing machine are discussed. Illustrated. 16 pages. Anchor Hocking Glass Corp. (6-714)

CELLULOSE BANDS. Prices are provided for Sylvania bands and additional costs for printing. The advantages of these bands are presented. Sylvania Div., American Viscose Corp. (6-715)

AUTOMATIC PACKAGING MACHINES. Various Transwrap automatic packaging machines are illustrated and described along with an illustration of the type package produced by each. 8 pages. Transparent-Wrap Machine Corp. (6-716)

CONTROL INSTRUMENTS. High speed electronic counting, timing, and control instruments for applications involving quantity, length, time, sequence, frequency, and revolution are discussed. 4 pages. Potter Instrument Co. (6-717)

CORRUGATED BOX MAKING MACHINERY. Illustrated brochure describing the operation of the Rite-Size box machine that makes an infinite variety of sizes of regular slotted and overlapped corrugated cartons. 4 pages. Jacob Industries Sales Corp. (6-718)

CARTON TUCKER. Specifications, illustrations, and other information is provided on the Neomax line carton tucker. William B. Sanford, Inc. (6-719)

BAG FILLING AND SEALING EQUIPMENT. Illustrated brochure describing the Model 200 bag filling, setting, folding and heat sealing machine, including the newly developed shuttle filler and other attachments. Specifications and installation views also included. Niagara Packaging Machinery Corp. (6-720)

FIBERGLAS REINFORCED TAPE. Construction, physical characteristics, and various applications are discussed. 4 illustrated pages. Industrial Tape Corp. (6-721)

SEALERS. Information on adjustable pressure, special design, applications, specifications, etc. of Sav-Way Sara sealers is provided. 4 illustrated pages. Sav-Way Sara Seal, Inc. (6-722)

MULTIPRESS. Given are the specifications, features, advantages, and sample of the work done on the Multipress for carton and label imprinting, coding, and dating. Illustrated. 4 pages. B. Verner & Co., Inc. (6-723)

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UNBREAKABLE POLYETHYLENE BOTTLE. Illustrated summary of 24 applications of the unbreakable Plaxpak polyethylene bottle in the drug, cosmetic, and other fields. Also described are the services Plax provides in connection with its bottles. 4 pages. Plax Corp. (6-724)

TEKWOOD. Brochure giving the specifications, features, and suggested applications of Tekwood, a tough, sturdy, flexible material using wood as a base. 12 illustrated pages. U. S. Plywood Corp. (6-725)

PAPER BOX MACHINE. Given is information as to the adjustability, accessibility, and construction, of the Model HS Stokes-feed paper box machine. Specifications, illustrations, and diagrams are included. 4 pages. Stokes and Smith Co. (6-726)

CARTON WRAPPING MACHINE. The features of the Hayssen carton wrapping machine, designed for wrapping multiple-unit packages, are provided. An illustrated description of the machine's operation is also included. 4 pages. Hayssen Mfg. Co. (6-727)

FILAMENT TAPE. Various suggested applications of "Scotch" filament tape are illustrated and described. This new tape is designed for use wherever great strength and flexibility are needed. 4 pages. Minnesota Mining & Mfg. Co. (6-728)

TURRET LABELER. Described is the World Turret Labeler, designed for fully automatic, continuous, low cost labeling of glass containers. Illustrations and diagrams showing construction are included. 4 pages. Economic Machinery Co. (6-729)

CONTAINER PLUGS, SLEEVES, AND CAPS. Illustrations and dimensions of various container plugs, sleeves, and caps that

give protection against dust and dirt, and damage in spraying, are given in this 4-page bulletin. Cleveland Container Corp. (6-730)

DRY LABELING. Specifications, features, and advantages are given on the Pony Label-dri, a semi-automatic labeling machine using no glue, but rather thermoplastic labels to achieve a plastic-to-plastic bond between a label and a plastic product or container. New Jersey Machine Corp. (6-731)

PLASTIC CONTAINERS. The sales advantages of Clearsite plastic containers along with their available range of sizes are given. 4 pages. Celluplastic Corp. (6-732)

BELT TYPE CONVEYOR. Sheet giving the specifications of the Styl-O-Matic belt type conveyor for bottles, jars, cans, and containers. Island Equipment Corp. (6-733)

BAG MACHINE. Discussion of the Roto bag machines used for heat seal bag making with cellophane, ployfilm, and polyethylene. Summary of the features and specifications is included. 4 pages. Roto Bag Machine Corp. (6-734)

NET WEIGHING. Four models of the Glengarry Thrifty-Weigh net weight filling units capable of handling a wide variety of dry materials are described. Operational information, specifications, and suggested applications are included. Glengarry Machine Works, Inc. (6-735)

FIBERGLAS. Manual on Fiberglass yarns and scrim fabrics for reinforced paper and tapes. Samples and savings calculator devices are included. Owens-Corning Fiberglass Corp. (6-736)

SHIPPING ROOM PROBLEMS. Shipping room folder discussing the many and

varied shipping room problems. It describes and illustrates some of the Bostitch machines available for top sealing, assembling, bag sealing, tacking, etc. 4 pages. Bostitch. (6-737)

CORRUGATED WRAPPING PAPER. Shellerease, the new packing material which combines both the flexibility of wrapping paper and the protective qualities of corrugated board, is presented. Illustrations show method of use. 4 pages. Shelton Mfg. Co., Inc. (6-738)

SPOT LABELING. Features, advantages and method of applying Pervenac (Thermokote) spot labels. Label printing and varnishing tips and list of stock grades of Pervenac are included. 4 pages. Nashua Gummed and Coated Paper Co. (6-739)

HYDRAULIC VULCANIZER. Three pages of specifications on the new Heinrich hydraulic vulcanizer. A blueprint is included. H. H. Heinrich Inc. (6-740)

TABLET COUNTERS. Specifications, features, and operational information on the Model 20 and Model 17 tablet counters. Illustrated. The Lakso Co., Inc. (6-741)

CARTONING MACHINES. Pamphlet featuring six can cartoner and stresses the simplest methods of inserting articles in cartons. Also included is the method of analyzing customer's packaging problems used by Rockwell Packaging Machines, Inc. (6-742)

UPRESSIT CAPS. Discussed are Upressit caps in their various shapes and forms. Table showing the various standard sizes is included. Upressit Products Corp. (6-743)

CAN PACKERS AND BOOSTERS. Summary of advantages, operational information, and specifications and features of various type can packers and boosters are given. 8 pages. Standard-Knapp, Div. of Hartford-Empire Co. (6-744)

TWIN CYLINDER FILLING MACHINES. A 5 page descriptive brochure giving specifications, pictures, and other pertinent data on "two-in-one" plunger-type filling machines. Elgin Manufacturing Co. (6-745)

ROTOGRAVURE PRINTING. Gravure is discussed in technical detail and compared with other printing processes. Gotham Ink & Color Co. (6-746)

METAL EDGE BOXES. Brochure tells the advantages of the metal edge method for packaging, material handling, and inventory control, in the experience of outstanding concerns in 77 different industries. National Metal Edge Box Co. (6-747)



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For Your Information



The annual meeting of the **Fibre Drum Mfrs. Assn.** was held in Chicago, April 27-28, the week of the National Packaging Exposition. Newly elected officers for the coming year are: president, **W. J. Mahoney** of the Master Package Corp.; vice president, **H. L. Carpenter** of Greif Bros. Cooperage Corp.; treasurer, **A. J. Godshalk** of the Fibre Drum Co. **C. E. Eggerts** of Continental Can Co. and **R. F. Gumbert** of Plyfiber Container Corp. continue as directors.

At the first meeting of the **Petroleum Packaging Committee** of the **Packaging Institute** held recently in New York, metal drums and pails were designated as the No. 1 packaging problem and motor-oil packaging as the No. 2 problem of the petroleum refining industry. A subcommittee was appointed on metal drums and pails consisting of: **R. B. Ogden**, Socony-Vacuum Oil Co.; **S. S. Tomlin, Jr.**, Shell Oil Co.; **H. W. Wogisch** of L. Sonneborn Sons, Inc. This subcommittee will recommend to the main committee steps to be taken on standardization of container sizes and weights. A subcommittee on motor-oil packaging was also appointed, consisting of **F. M. Landon**, Sun Oil Co.; **A. R. Dismukes**, Gulf Oil Co.; **X. R. Smith**, Atlantic Refining Co. The study of filling operations and shipping containers for both domestic and export shipment will be the work of this group. The next meeting of the Petroleum Committee

will be June 12 at the Atlantic Refining Co., Philadelphia.

American Society of Testing Materials will hold its 53rd annual meeting June 26-30 at Chalfonte-Haddon Hall in Atlantic City. The 1950 exhibit of testing apparatus and related equipment will feature improved physical and chemical testing instruments exhibited by nearly 50 manufacturers and distributors.

The 32nd annual convention of the **National Paper Box Mfrs. Assn.** was held in Chicago, May 14 to 17. Also in attendance were representatives of the **National Paper Box Supplies Assn.** Registration was officially placed at 352. **Clement Moore**, cost and tax consultant for the association, reported that although sales of the industry were down nearly \$8,000,000 in 1949, on the basis of representative surveys, the margin of profit on the sales dollar declined only 7/100 of 1%, attributed, to a large degree, to efficient management.

New officers of the association elected at the convention were: **Douglas T. Neal**, president of E. J. Schoettle Co., vice president; **Henry J. Aemisegger**, president of G. A. Bisler Inc., as treasurer. **A. S. Daniel** was re-elected president. **G. L. Nordstrom** was appointed secretary. **Ralph L. Harden**, Mason Box Co., Attleboro Falls, Mass., was named to the board of directors and other members were re-appointed.

The new address of the **Folding Paper Box Assn. of America** is 337 W. Madison St., Chicago 6, Ill.

The 1951 Convention sponsored by the **National Canners Assn.**, **National Food Brokers Assn.** and **Canning Machinery & Supplies Assn.** is scheduled for the week of Feb. 18, 1951, in Chicago. The annual C.M. & S.A. Exhibit will open on Feb. 17. A simultaneous meeting of the sales and production groups was decided upon in place of the separate meetings held at the last convention in Atlantic City, in response to the expressed desire of a majority of the memberships of the three sponsoring associations. As was the plan at Atlantic City, N.C.A. will house its own members and the buyer groups; N.F.B.A., its member-brokers and non-canner principals; and C.M. & S.A. its member exhibitors. Information on hotel accommodations will be announced by each association.

Committee D-10 on shipping containers

of the **American Society for Testing Materials** met at the U. S. Forest Products Laboratory in Madison, Wis., April 27-28. The committee re-elected **T. A. Carlson**, chief of the Forest Products Laboratory's division of material containers, as chairman. **Earl R. Stivers**, director of the Package Research Laboratory, was re-elected secretary. **R. C. McKee**, Institute of Paper Chemistry, was named vice chairman.

The **National Canners Assn.** dedicated its new million-dollar research and administrative headquarters—a three-story structure at 1113 20th St., Washington, D. C., on June 8. **Dr. C. G. King**, scientific director of The Nutrition Foundation, delivered the dedication speech at a special luncheon at the Mayflower Hotel.

A joint Navy and Air Force Packaging and Materials Handling Seminar was held recently at the Norton Air Force Base, San Bernardino, Calif., for reserve officers. Director of the seminar was **Maj. Robert V. Hemm**, USAFR. **Lt. Commander L. H. Loudon**, USNR, was co-director. They were assisted by **Maj. Perry L. Knight**, chief of the Operations and Training Section at Norton Air Force Base. Arctic packaging and aviation material packaging were two topics for discussion.

Among the speakers at the 15th annual convention of **The Toilet Goods Assn.** at the Waldorf-Astoria in New York was **John L. Harvey**, director of regulatory management, Food & Drug Administration, who discussed the application of regulatory laws to cosmetics and drugs.

A 64-page guidebook, "Selling to the Government," published by the **Chamber of Commerce of the United States**, explains procurement operations and lists agencies which make major purchases. Designed to show businessmen how to get spot information made available by Government agencies, the booklet shows: (1) who buys for the Government, (2) where to get the facts, (3) what to do and (4) how the Government buys. Copies of the pamphlet are available at 50 cents each from the Chamber of Commerce, Washington, D. C.

A description of the different types and sizes of containers commonly used for shipping fresh fruits and vegetables is provided in **Farmers' Bulletin No. 2013**, "Containers in Common Use for Fresh Fruits and Vegetables," issued by the **U. S. Department of Agriculture**. This illustrated publication is based on a study by the Fruit and Vegetable Branch, Production and Marketing Administration, and is available from the Information Branch of PMA, Washington 25, D. C.

The **Porcelain Enamel Institute**, in order to clarify any misunderstanding regarding participation in the National Safe Transit Program for reducing shipping damage to major appliances and

What's doing

June 12-16—**Packaging and Materials Handling Institute** sponsored by Society of Industrial Packaging & Materials Handling Engineers and the University of Southern California, Los Angeles.

June 12-30—**Special Course in Food Technology**, Massachusetts Institute of Technology, Cambridge, Mass.

June 26-30—**American Society for Testing Materials**, 53rd annual meeting and 9th exhibit, Chalfonte-Haddon Hall, Atlantic City, N. J.

June 29-July 1—**Grocery Mfrs. of America**, mid-year meeting, The Greenbrier, White Sulphur Springs, W. Va.

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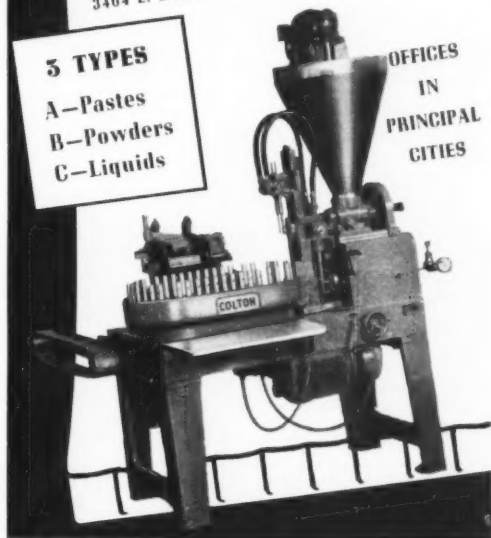
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**For Your
Information**

(Continued)

other finished-metal goods, has stated that the program is industry wide and that participation by manufacturers is entirely independent of membership in any trade association. Any manufacturer interested in the program may obtain complete information on the project's operation and progress from the National Safe Transit Committee, 1010 Vermont Ave., N. W., Washington 5, D. C.

The 18th Annual Meeting of the Packaging Machinery Mfrs. Institute will be held Sept. 23-26 at the Homestead, Hot Springs, Va. Edwin H. Schmitz, general sales manager of Standard-Knapp, is chairman of the program committee.

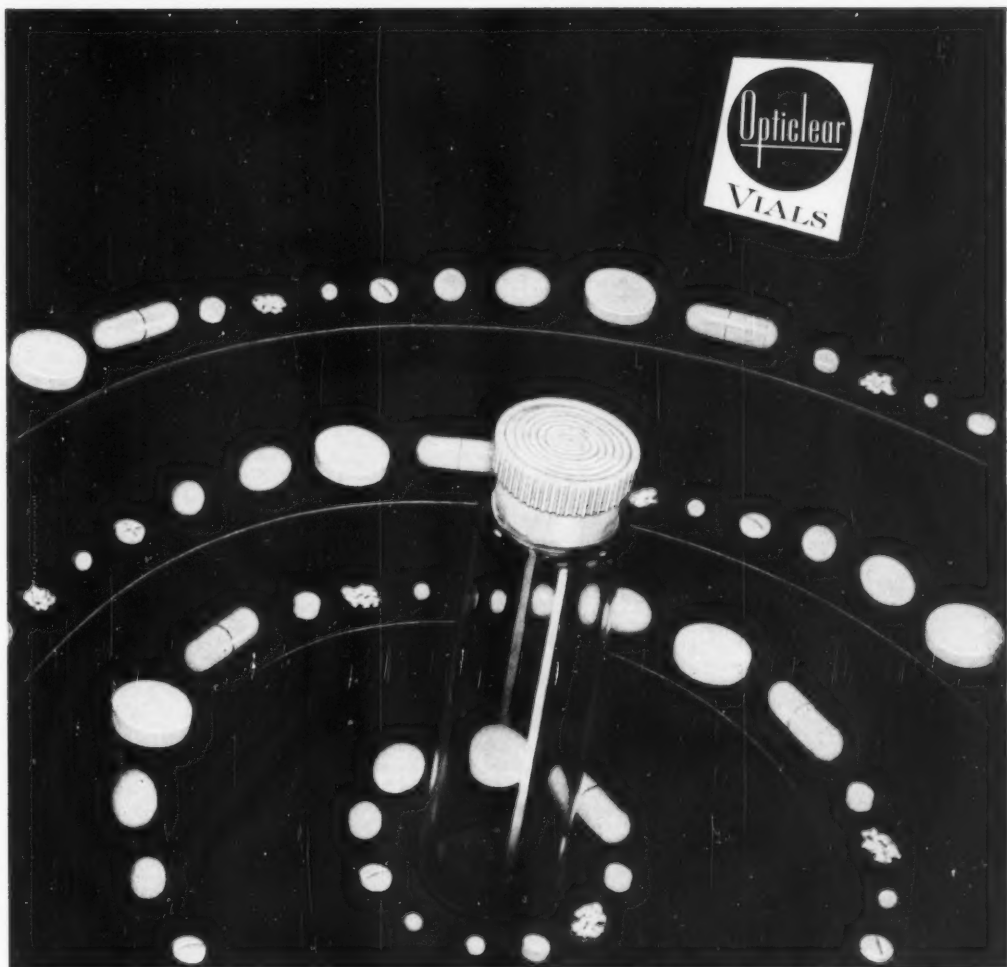
F. F. Holt of General Motors Corp., Truck & Coach Div., has been elected president of the Michigan Div., Society of Industrial Packaging & Material Handling Engineers.

A new eight-page folder containing samples of 21 glassine, greaseproof, waxed, coated and foil-laminated packaging papers has just been issued by Riegel Paper Corp., 342 Madison Ave., New York. To assist in the selection of proper papers a chart is included which briefly describes the characteristics of the samples and tabulates a few of their general uses.

Packaging from the standpoint of cost, sales appeal, shelf appeal and utility is the essence of "101 Ways to Get Better Packaging," a manual published by W. C. Ritchie & Co. Copies may be had from W. C. Ritchie & Co., 8840 S. Baltimore Ave., Chicago.

A coated-paper sample booklet, published by the Oxford Paper Co., 230 Park Ave., New York, offers a complete description of the qualities of each grade of the company's papers, recommended screens for letterpress printing, folding characteristics and suggested end-product uses. Copies may be had on request to the company.

The ninth edition of the Graphic Arts Production Yearbook (Colton Press, Inc., New York, \$15) is now available. The new reference volume, containing 250 pages more than the previous edition, has expanded its discussions of the practical, artistic and technical aspects of the graphic arts field and introduces several new features. Among the new



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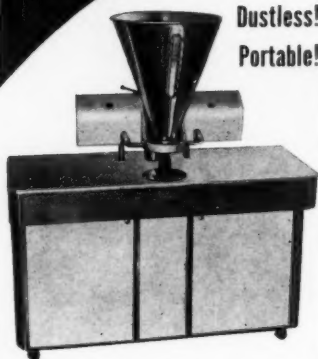
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(Continued)

features is a unique color Visualizer showing the 1,079 color combinations obtained in four-color printing and giving the tint strength for each. Actual samples of the basic kinds of papers demonstrating the different weights, finishes and special characteristics are included. For the first time the side notes of the standard Photo-engraver's Scale have been explained and illustrated. The ninth edition, with contributions from leading artists, designers, photographers and technical men, presents a comprehensive treatment of the latest developments in the graphic arts field.

A tabulation of labeling difficulties, their causes and correctives are presented in the revised edition of "Successful Can Labeling," a booklet published by **National Adhesives**. Copies of the booklet may be obtained from National's headquarters, 270 Madison Avenue, New York.

A new booklet entitled "Plexiglas Acrylic Plastic Molding Powders," covering the company's heat-resistant, medium-flow and general-purpose formulations has just been published by the **Rohm & Haas Co.** Copies may be obtained from the company's Plastics Dept., Washington Square, Philadelphia 5, Pa.

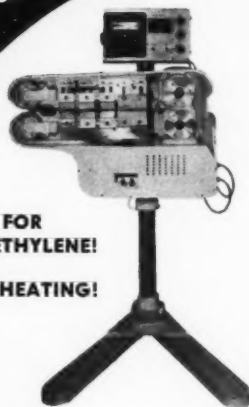
A practical summary of the techniques of lettering has been presented in "The Elements of Lettering," (McGraw-Hill Book Co., Inc., New York, \$3.75) by **John Howard Benson** and **Arthur Graham Carey**. This widely illustrated volume will prove useful to the student as well as the experienced calligrapher.

"Specialty Papers," (Remson Press, Brooklyn, \$10) edited by **Robert H. Mosher** of the **Holyoke Card & Paper Co.**, Springfield, Mass., gives brief historical facts, general specifications and composition of the so-called specialty papers. The book is recommended as a contribution to knowledge in a field that has in many cases been devoid of reliable information.

As a service to adhesive users, **Paisley Products, Inc.**, is introducing a handy chart for calculating the proper amounts of diluent to be added to a given amount of prepared adhesive. Copies may be had from Paisley Products, Inc., 1770 Canalport Ave., Chicago, or any Paisley sales service offices.

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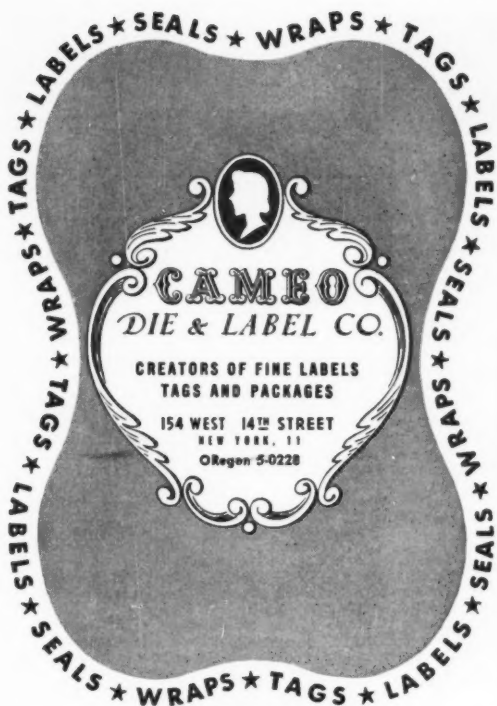
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U.S. Patents Digest



Edited by H. A. Levey

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Container-Flap Folding Apparatus, S. H. Berch, Beverly Hills, Calif. U. S. 2,500,922, March 21. In a packaging machine, means for closing a carton having vertical side walls including folded gussets, certain of which form pockets, by means of a synchronous driving means for the two folding means whereby they operate in succession to close top of carton.

Device For Using Adhesive Tape, G. H. Fritzinger (one-half to H. G. Kendall). U. S. 2,501,324, March 21. In a device for dispensing strips of pressure-sensitive tape from a supply roll the combination of a frame, a plunger movably mounted on frame, a cutting member secured to one end of plunger, tape feeding means including a member for engaging the adhesive side of the tape drawn from the roll and directing tape across cutter.

Tape-Severing and Applying Device, T. H. Krueger (to Better Packages, Inc., a corporation of New York). U. S. 2,501,341, March 21. In a machine for applying adhesive tape, a support for a supply of tape, means for providing a tape-applying surface against an article with end of strip of tape coming from the tape so supply may be rolled to wind the tape about the article and having a tape cutter adjacent to the tape-applying surface in position to cut the strip of tape between wrapped article and tape supply.

Label-Cutting Machine, E. J. Hubel-meyer (to J. & H. Label Processing Corp., Little Ferry, N. J.). U. S. 2,501,334, March 21. In a machine of this type, a pair of feed rolls arranged to advance a label strip intermittently, means for exerting a resilient pressure between the rolls, means for exerting a tension on the label strip when it is advanced, a shearing mechanism, means for rotating rolls intermittently and actuating shearing mechanism during period of rest of feed rolls.

Package, S. A. Larsen, Detroit, Mich. U. S. 2,501,570, March 21. A package which comprises a frame, two sheets of rubber hydrochloride film and an article snugly enclosed between oppositely facing, permanent pockets formed in the sheets of rubber hydrochloride film.

Container For Flat Articles, S. P. Midouhas (to Kemline Products Co., Bristol, Pa.). U. S. 2,501,609, March 21. A container for flat articles formed from a blank of sheet material having a plurality of intersecting lines of fold defining a lower wall, side walls and upper walls forming closure flaps, each edge of container having a pair of spaced cuts lying generally perpendicular with such edge and extending through side wall and into top and bottom walls, material disposed between each pair of cuts being disposed

inwardly of such edge to form a tongue which spaces article inwardly of edge.

Self-Closing Powder Can, R. Nyden and H. K. Dickerman (to F. N. Burt Co., Inc., Buffalo, N. Y.). U. S. 2,501,735, March 28. In a container closure, in combination, a wall portion having a dispensing opening and an attaching opening and being outwardly domed and having an interior seat, an inner closure member mounted for opening and closing movement and conforming approximately to said domed-wall portion.

Packaging For Handled Tools, J. W. Cochran (to Warwood Tool Co., Wheeling, W. Va.). U. S. 2,501,811, March 28. A composite package for handled tools, each having a head in generally right-angled relation to its handle, comprising a relatively stiff fibrous folded lower enclosure adapted to fit over the head of at least one of such handled tools.

Container, R. B. Cartwright, Peoria, Ill. U. S. 2,501,842, March 28. A blank from which to form a container including side sections, a front and back section, all being connected at fold lines between them, a flap at each of opposite ends of side sections and a flap at each end of back section, the several flaps constituting top and bottom portions of container to be formed.

Means For Effecting Hermetic Closures in Cartons and Containers, W. A. Ringler (to The Gardner Board & Carton Co., a corporation of Ohio). U. S. 2,501,852, March 28. In a seam construction in a carton or like container, juxtaposed board faces consisting of at least two board elements co-extensive throughout the seam and another board element not co-extensive but terminating within ends of seam.

Single Closure For Bottles, C. H. Krebs (to Standard Cap & Seal Corp., Chicago, Ill.). U. S. 2,501,849, March 28. A skirted closure for milk bottles, said closure being of a laminated construction comprising superposed laminations consisting, respectively, of paper, metal foil and machine-glazed paper in the order mentioned, with interposed layers of water-insoluble material between laminations bonding them together, machine-glazed paper serving as the inner layer of closure and being arranged with glazed side in contact with water-insoluble material, leaving rough side to form inside surface.

Machine With Rotating Platform For Filling Bags and Pillows by Centrifugal Force, M. Goldberg, New York, N. Y. U. S. 2,502,087, March 28. In a machine for filling containers with fibrous material, a casing having a stationary hopper and means for rotatably supporting a shaft

in upright position, a disk-shaped platform fixed to shaft and rotatably mounted in casing, platform having a plurality of

angular supports spaced around its circumference and providing converging vertical walls against which containers to be filled may be placed and held against movement during rotation.

Method and Apparatus For Lining Blanks, H. Anderson (to General Mills, Inc., a corporation of Delaware). U. S. 2,502,117, March 28. The method of lining slotted blanks which comprises feeding blanks in spaced relation, fastening a continuous strip of lining material to a plurality of said spaced blanks with the material overlying a portion of slots, severing material between blanks and slitting material at said slots.

Container For Carbon Paper, F. Gianninoto (to Underwood Corp., New York, N. Y.). U. S. 2,502,214, March 28. A container for carbon paper made of relatively heavy paper or similar material and provided with a compartment having two relatively wide opposed inner and outer walls, two relatively narrow side walls and a relatively narrow end wall and arranged to hold unused sheets.

Tape-Applying Apparatus, G. L. Hawkins and P. H. Thompson, Kirkwood, Mo. (Thompson assignor to Hawkins). U. S. 2,502,257, March 28. A holder for a roll of adhesive tape, a tape feeding and perforating reel rotatory on the holder and having peripherally spaced toothed tape-engaging bars, reel being rotatable successively to deliver an end length of tape spanning two adjacent bars from the roll to delivery position and carrying a printing stamp within the reel from a retracted inking position.

Dispensing Container, D. C. Clarke, Mountain Lakes, N. J. (one-third to R. Ostertag, Brooklyn, N. Y.). U. S. 2,502,311, March 28. A dispensing container comprising a shallow body member and a sliding cover member, barrier means on body member defining two sides of a dispensing compartment, a third side of which is provided by one of the first two mentioned members.

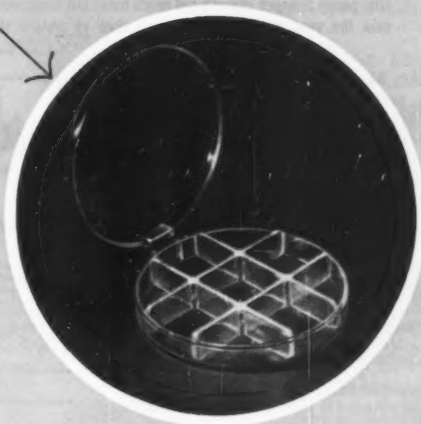
Bag Stacking and Bundling Machine, B. Gilowitz, Bronx, N. Y. (50% to A. Friedberg, Mt. Vernon, N. Y.). U. S. 2,502,374, March 28. A device with a supporting frame having an article entrance and article exit, an endless belt rotatable in said frame and means for moving belt, having lugs arranged for movement between strips to move articles supported thereon from entrance to exit.

Automatic Weighing and Packaging Apparatus, S. R. Howard (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U. S. 2,502,380, March 28. In a packaging machine, a scale beam arranged to support a partially filled package with the beam in an initially overbalanced position, means including a movable member for applying to scale beam a gradually increasing force to effect balancing movement of beam, means responsive to movement of movable member for predetermining a quantity of material to be fed into package in an amount proportionate to the force required to balance scale.

Bottom Construction For Paperboard Containers, G. Loth (to The Hinde & Dauch Paper Co., Sandusky, Ohio.). U. S. 2,502,384, March 28. A rectangular container having upright walls and a bottom comprising two sections disposed

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Jewelry Box: Beautifully designed to accent the sales appeal of jewelry products. In two parts, this box measures 3½" long, 3" wide, 1½" high. Molded and distributed by Commonwealth Plastics Corp., 98 Adams St., Leominster, Mass.

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Dear Sir: Maybe you have had too much else on your mind to worry about how your company packages, ships, or bundles materials within your plant.

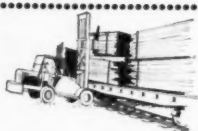
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POSITION

NAME

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U.S. Patents Digest

(Continued)

with their edges abutting, said sections comprising extensions of two opposite walls and folded along lines parallel to provide inner edges that abut.

Duplex Bag Body, A. S. Roper (to Bemis Bro. Bag Co., Minneapolis, Minn.). U. S. 2,502,481, April 4. A bag composed of flexible dual-ply wall bag body comprising an inner ply of flexible opaque paper having a window opening formed in at least one wall of inner ply, outer ply of flexible transparent cellophane sheet disposed over and covering one face of inner ply and a narrow continuous strip of the surface of one of the contacting faces of inner and outer plies adjacent the edge of window opening formed in inner ply having an adhesive coating for bonding inner and outer plies.

Combined Tape and Mastic Applicator, R. G. Ames, Burlingame, Calif. (one-fourth to S. Ames and one-half to G. Williams, both of Burlingame, Calif.). U. S. 2,502,499, April 4. In a combined tape and mastic applicator, tape-feeding means including a member for applying tape to a wall surface, means for severing tape, and means for applying a layer of mastic to tape between tape-severing means and member for applying tape.

Method of Packaging Lumped Commodities, A. F. Ottinger (to Bemis Bro. Bag Co., St. Louis, Mo.). U. S. 2,502,586, April 4. The method of forming a package of produce comprising the steps of drawing a length of fabric tubing from a continuous supply thereof through a constricting opening, said opening being of such form as to constrict the tubing sufficiently to prevent individual items of produce from passing therethrough.

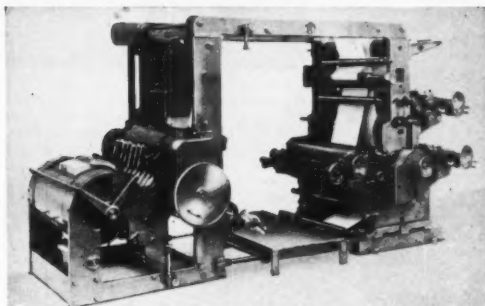
Package Device For Shipping and Displaying Articles and Display Mantle Therefor, L. Ebert (to Einson-Freeman Co., Inc., Long Island City, N. Y.). U. S. 2,502,561, April 4. A package device for shipping articles and displaying same, comprising a rectangular box having front, rear and side walls, side and rear walls being slittable along a plane inclined upwardly and rearwardly from midpoints of front vertical edges, resultant upper box portion being turnable forward to open box and to position upper portion in front of lower box portion to form an open-top display structure.

Packaging Baked Goods, W. Swartz, Chicago, Ill. U. S. 2,502,635, April 4. In a package containing bread or cake, the combination of a paper wrapper for the perishable material with an insert adapted to separate portions of the material, said insert having two substantially parallel flat sides of substantially the same cross section.

Margarine Packaging, L. C. Brown (to Swift & Co., Chicago, Ill., a corporation of Illinois). U. S. 2,502,920, April 4. The method of packaging prints of margarine and coloring thereof which includes injecting coloring into interior of prints in a concentrated state and in direct contact with the margarine, but in such spatial relation to exposed surfaces

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U.S. Patents Digest

(Continued)

of prints as to be substantially wholly concealed, and enclosing the prints into which the coloring has been injected in pliable containers in which coloring and margarine may be admixed by kneading.

Carpule-Filling Machine, N. Applezweig, New York, N. Y. U. S. 2,503,147, April 4. For use at the filling station of an apparatus for loading hermetically sealed carpules, each of which is closed by a cap of self-sealing material, and which apparatus includes means for moving carpules to and beyond filling station and for holding carpules in proper position for loading at station; an injecting means including a pair of needles, slidably, telescopically disposed within the other.

Bagging Machine, W. W. Windle, Millbury, Mass. U. S. 2,503,183, April 4. In a device, a support, separate means on support selectively movable to and from each other, means being effective to support the lips of a bag in open condition when means are separated; bag-hold means being constructed and arranged to be drawn toward each other to close the bag by the weight.

Bag Support and Closing Mechanism Having Slidably Mounted Pronged Holding Rollers, W. W. Windle, Millbury, Mass. U. S. 2,503,184, April 4. A device with a frame, spaced guideways therein, a right- and left-hand screw shaft in each guideway, a pair of nuts on each shaft for motion to and from each other as the shafts are rotated, a roller journaled in each corresponding pair of nuts for planar motion therewith, bag-holding pins on each roller and a pair of circumferentially spaced notches in each roller wherein bag edges may be secured together when rollers are in adjacent position.

Weight-Controlled Volumetric-Filling Mechanism, C. E. Palmer (to Frank D. Palmer, Inc., a corporation of Illinois). U. S. 2,503,295, April 11. The combination of an adjustable-capacity measuring receptacle arranged to deliver a measured quantity of material to a container.

Collapsible Egg Carton, H. Levine, Philadelphia, Pa. U. S. 2,503,343, April 11. A carton having side walls and an interconnecting bottom wall of inverted V-shape, ridge of bottom wall being provided with a plurality of longitudinally spaced slots therein.

Article-Holding and Display Container, S. H. Davis (to The S. H. Davis Paper Co., Toledo, Ohio). U. S. 2,503,379, April 11. A container body for crayons and color cards made from a single-piece blank comprising a back panel, front panel and partition panel at opposite ends of back panel, end sections foldably connecting front and partition panels to back panel, with partition connecting one-half the width of container body.

Container, M. T. Derby (to Thermacote Co., Los Angeles, Calif.). U. S. 2,503,380, April 11. A pair of rectangular-shaped containers, each having an open face and adapted to fit together telescopically.

GOT FILLING PROBLEMS?

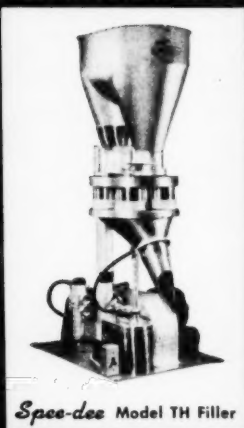
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Mixes • Cake Toppings • Coffee • Soap
Powders • Tapioca • Cheese Wafers • Oyster
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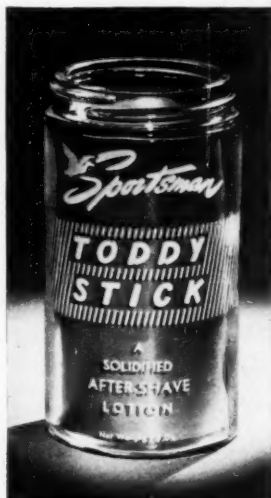
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U.S. Patents Digest

(Continued)

cally, side walls of each section being formed with an aperture adapted to receive a hinge pintle adjacent one end thereof, inner of said sections being formed with a slot in each wall thereof and the other end, a shaft slidably disposed in slots and a resilient U-shaped retaining bracket having aligned apertures in the free ends of upright legs adapted to be rotatably disposed over ends of shaft.

Device For Partitioning a Basket Into Compartments For Packing Different Kinds or Different Colors of Fruits, O. P. Dowell, Lawrenceville, Ill. U. S. 2,503,326, April 11. An arrangement for packing fruits in separate compartments in a container liner comprising a compartment-forming unit including partitions having inner edges hinged together at the vertical center of container and a removable frame having pairs of spaced parallel depending fingers engaging opposite faces of partitions.

Paper Strip Cutter and Gluing Apparatus, R. S. Hosmer and F. O. Hosmer, Birmingham, Ala. U. S. 2,503,439, April 11. In apparatus for cutting a strip from a sheet of material and pressing the strip in contact with an envelope, a carriage, cutting roller mounted on carriage, stationary cutter having an edge cooperating with roller to shear the sheet.

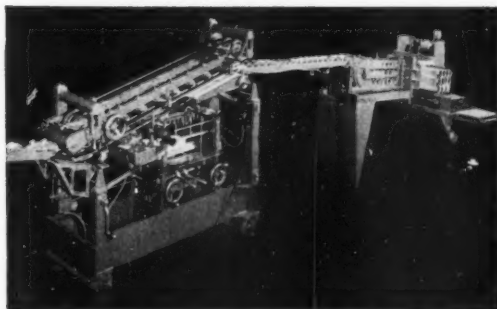
Covered Container, K. T. Buttery (to Sutherland Paper Co., Kalamazoo, Mich.). U. S. 2,503,798, April 11. In a lined container, the combination of bottom and body front, rear and end walls, the front and rear walls having corner flaps provided with upwardly directed tongues on their end edges, front corner flaps having foldable extensions of substantial length on their upper edges, end walls having slits opening at their end edges.

Label Transfer Means for Labeling Machines, S. T. Carter (to Economic Machinery Co., Worcester, Mass.). U. S. 2,503,799, April 11. Apparatus comprising an adhesive type picker, means for moving picker along a closed path and for stopping it successively at a gum-receiving, label-receiving and transfer station.

Knock-Down Crate For Shipping, Storing and Other Handling of Merchandise, L. F. Emighols and C. C. Averill (to Union Steel Products Co., Albion, Mich.). U. S. 2,503,811, April 11. In a collapsible crate, bottom comprising a border frame and crossed sets of wire slats fixedly secured to border frame and to each other at their crossing points, opposed pairs of side walls comprising crossed horizontal and vertical slots fixedly connected at their crossing points, horizontal and vertical slats being formed of wire strands bent zigzag.

Labeling Machine, C. Holm (to Economic Machinery Co., Worcester, Mass.). U. S. 2,503,872, April 11. A labeling machine wherein an adhesively coated picker removes a label from a magazine, carries it to a transfer station where it is transferred to a pneumatic applicator and wherein adhesive is supplied to the picker on its way from transfer to magazine.

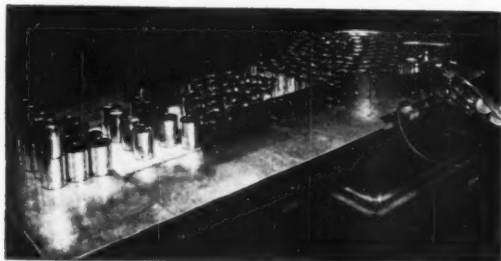
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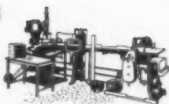
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Glassed-foods test

The ability of glass-packed processed foods to increase total sales and profits in "canned foods" departments is reported in an 18-minute motion picture currently being shown by Owens-Illinois Glass Co. to packers, distributors and retailers. The report is based on results of an eight-week market



SHELF ARRANGEMENT used by American Stores test in 12 markets.

study in Acme Super Markets, operated by the American Stores in Philadelphia.

Entitled "The American Stores Milestone," the film shows that when glass-packed vegetables were added to the shelves of test stores, total sales volume was substantially increased in every

instance and that the gains for glass were not made primarily at the expense of tin sales, but rather were additional sales.

Twelve stores were selected for the test by American Stores officials. Half of the stores were stocked with test items in tin alone, the other half in both glass and tin items. Sales were checked for four weeks. During another four-week period, glass test items were added to the tin-stocked stores and sales recorded. The results showed that sales volume of test items in glass-tin stores far outweighed sales in stores handling only tin-packed items.

During the first four-week period, sales of items in tin stores totaled 1,881 units, while sales of the same items in glass-tin stores reached 2,704 units. Glass accounted for 43% of the items sold in the glass-tin stores. During the second four-week period, tin stores sold 35.6% more merchandise after the glass items were added than they did when only tin was sold. In conducting the study, test items were available only from shelf stock and no floor or end gondola displays were used.

The report emphasizes that sales volume was increased without the use of extra space. The tin-plus-glass items occupied the same amount of space previously allotted to the item in tin alone.

Flower pre-packaging

(Article continued from page 124)
very little cooling was recorded in the lower layers.

A suggestion was made that circulation might be improved by using an inner corrugated liner with the facing removed so that corrugations running up and down the sides and across the bottom would provide channels for penetration and circulation of the carbon-dioxide gas. This idea has merit, because the temperature just inside the walls of a container rises rapidly during the first hour it is subjected to high temperatures. This is true regardless of the thickness of the wall. Even with the eight-ply Thermocraft lining, the rise the first hour was 10 to 15 deg. It then leveled off at 1/2-deg. increments per hr. The rise for a plain single-ply container was as

much as 10 deg. more than this during the first hour. In actual practice, however, it was again difficult to devise a container in which sufficient penetration of the gas could be obtained to cool the lower layers of flowers.

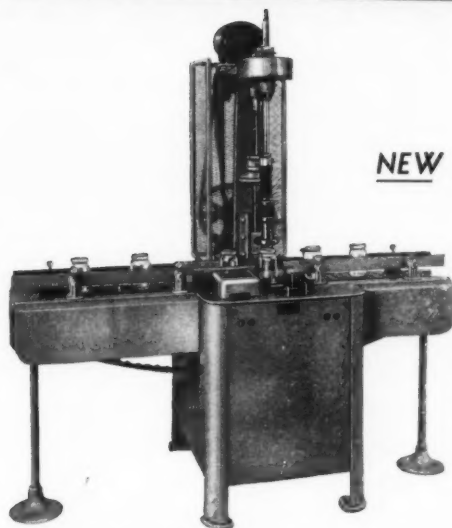
Although no specific arrangement can be recommended as entirely satisfactory for shipping packaged flowers with dry ice as the refrigerant, it is thought that some of these ideas can be applied. It is a problem for both the shipper and box maker. The most promising combination would appear to be placing the dry ice in Jiffy bags and lining the container with either Jiffy Blankets or Thermocraft. For uniform cooling, ice is necessary in both the top and bottom of the container—or in both ends.

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The superior qualities of General Mills Polyamide Resin have made it a proved performer as a heat sealing coating or adhesive for papers, plastic films and metal foils. It also forms a coating for nearly all types of materials and is remarkably resistant to water, water-vapor, grease and oil. In addition, Polyamide Resin shows high promise as an additive to other adhesives, as a protective and decorative coating, and in printing ink vehicles.

Now this truly unique resin is available in a new, easy to use form—*water suspensoids*. Check the many advantages of Polyamide Resin Suspensoids:

- ✓ Higher solids content at low viscosities
- ✓ Easier application, greater compounding versatility
- ✓ Controlled penetration
- ✓ Economy (elimination of expensive solvents)
- ✓ Safety (elimination of inflammable solvents)
- ✓ Relative freedom from odor
- ✓ Opaque white color

General Mills Polyamide Resin Suspensoids are presently available in two grades—A-000 and B-200. Write now for data sheets and information on samples. Use the handy coupon.

GENERAL MILLS, INC.
Research Laboratories, Dep't. NP2
2010 East Hennepin Ave.
Minneapolis 13, Minnesota

Please send me your Polyamide Resin Suspensoid data sheet . . . containing prices and information on samples.

Name _____
Company _____
Address _____
City _____ State _____



Europeans urged to study U. S. markets

The U. S. Marketing Council, Inc., New York, N. Y., and its affiliate, the Permanent Exhibitions for International Trade, Inc., in a letter sent to 1,000 European producers warned against considering America as just an extension of the European market or Americans as waiting with open mouths to receive European goods.

The letter, signed by J. Gordon Lippincott of the industrial-design firm of Lippincott & Margulies, Inc., told manufacturers in Marshall Plan countries to study American packaging and marketing methods before trying to compete with U. S. producers on their home territory.

"The American market is peculiar and different from any other," stated Mr. Lippincott. "Due to this peculiarity, the production of goods themselves are only part of the transaction. To develop export trade—and, more important, to hold it—manufacturers must be fully conversant with the selling methods used in the U. S. and the lines of thought adopted by stores to sell their goods."

As an example, Mr. Lippincott cited

British blankets which are crated and arrive in this country creased and unattractive looking. Although these blankets are admittedly superior to American ones, they have to compete against blankets which are attractively packaged.

The advent of the self-service store places another very great responsibility on manufacturers to package their goods properly, asserted Mr. Lippincott. Whereas the clerk pushes sales in Europe, here, in our self-service stores, the package is the only means of pushing sales. The American housewife is much more likely to pick on an attractively designed and well-presented package, irrespective of its content, than on a badly designed and executed package.

In his letter, Mr. Lippincott urged manufacturers preparing to sell in America to list their products by first displaying them through a sales organization such as the U. S. Marketing Council. Here, he explained, could be found a quick and inexpensive answer to the question of package appeal.

The letter concluded: "Any visitor

to America will be convinced of the American's craving for individual packages. Almost every article he has need to buy for his own use is separately wrapped for his special service."

New can method

A new principle for agitating in processing of canned foods which enables the use of higher temperatures with a resultant decrease in the time needed to sterilize foods in sealed cans, developed by the Continental Can Co., was described by Dr. L. E. Clifcorn at the recent meeting of the Institute of Food Technology in Chicago. The technique involves end-over-end rotation of the sealed can during processing at a speed such that the centrifugal force acting upon the can approximates the force of gravity. This permits heat penetration at the most rapid rate in products having one liquid component and normal headspace. The process reduces process time, it is claimed, accomplishes processing with a minimum of mechanical movement and does not break down the product's physical structure.

British Ministry of Supply use 'Alkathene' polyethylene film for packaging carbon resistors

'Alkathene' film has been chosen to protect carbon resistors supplied by the Erie Resistor Co., Ltd., London, in accordance with a British Government specification. 'Alkathene' film replaces a complex wax dipped laminate.

'ALKATHENE'

'Alkathene' is the registered trade mark of polythene manufactured by I.C.I.

It provides:

1. A lighter weight package
2. A reduction in materials and labour costs
3. Superior performance
4. Transparency, enabling condition to be observed

The film envelopes were manufactured by Paper Goods Manufacturing Co. Ltd.

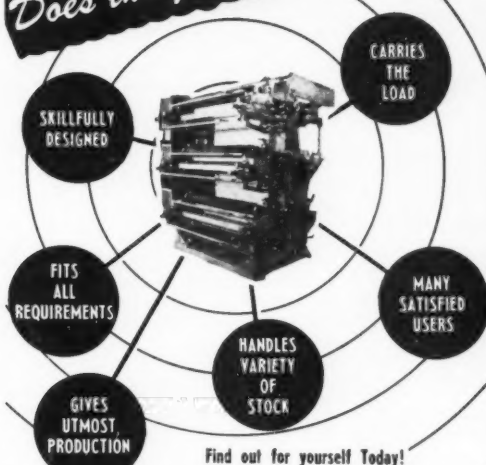
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LONDON, ENGLAND



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FOR BETTER PACKAGING!



PARTITIONS

THAT PROTECT AND
SAFEGUARD YOUR PRODUCTS

IMMEDIATE ATTENTION
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Prompt Deliveries
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Reasonable Prices
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WRITE, PHONE, WIRE for QUOTATIONS on YOUR REQUIREMENTS

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PARTITION
CORP.**

Manufacturers of
Paper Board
Partitions

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BROOKLYN 11, N. Y.
Telephone: TRIangle 5-4033

**This Could Happen
to You...**



A well planned fresh produce checkweighing operation - using EXACT WEIGHT Scale-Fort Pitt Tomato Co., Pittsburgh, Penna.

**do it the Exact
Weight Way...**

One of America's big name processors of unquestioned reputation has just been through an embarrassing predicament... delivering short weight packages and worse still being told about it by two of their biggest customers. Here is what brought about the condition. (1) carelessness in checking and adjusting filling machines (2) relying upon containers to take product to required weights (3) no systematic checkweighing of finished packages. This situation was promptly corrected with better planning; control measures in the form of EXACT WEIGHT Scales where they were needed and alert operators to make things click once again. Don't risk losses in product and business in your organization. Write for details covering the best practices and equipment now available for your particular business.

Sales
&
Service
from
Coast
to
Coast

EXACT WEIGHT SCALES
Industrial Precision
THE EXACT WEIGHT SCALE COMPANY

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2920 Bloor St., West, Toronto 18, Canada

KEEP

RUST

FROM AFFECTING IRON AND STEEL PRODUCTS



Bearing cup wrapped in untreated creped 30/30/30 Asphalt Duplex paper.



Bearing cup wrapped in T.R.I. treated creped 30/30/30 Asphalt Duplex paper.

T.R.I. treated papers are available in a wide range of grades:

- Kraft—plain or printed
- Crinkled kraft
- Crinkled waterproof papers
- Wax laminated or coated papers
- Duplex waterproof papers
- Reinforced waterproof papers
- Specialty bags

Preserve FERROUS METALS FROM ONE MONTH TO TWO YEARS...

... dependent upon storage, kind of T.R.I. paper used, and type of package—according to all field storage results and laboratory tests. T.R.I. exerts its protective action by forming an invisible rust-preventive film on the product. Specifically designed for use with iron and steel, T.R.I. prevents contact corrosion, is non-injurious to other metals, rubber and plastic materials, and is ordinarily non-toxic. T.R.I. is quickly recognizable by its distinctive color. It requires no special packaging or closure methods and eliminates the need for first oil-treating products, excepting with those unusually vulnerable to rust. For complete detailed information and samples, write us today.

THILCO Rust Inhibitor

THILCO

Functional Papers FOR PROTECTION THAT COUNTS!

NEW YORK • CHICAGO
DETROIT • MINNEAPOLIS

THILMANY PAPER CO. • KAUKAUNA • WISCONSIN

Package design suit

A suit charging trademark infringement and unfair competition has been filed in U. S. District Court at Cincinnati by McCormick & Co., Baltimore, against B. Manischewitz Co., Cincinnati.

McCormick charges that the trademark used on Manischewitz's recently redesigned packages (see MODERN PACKAGING, April, 1950, p. 182) is confusingly similar to the trademark previously adopted and used on McCormick's packages (see MODERN PACKAGING, May, 1950, cover and p. 86).

The action, which arises under the Federal Trademark Act of 1946, declares that McCormick adopted in 1938 its trademark consisting of a tall M and a small c. The trademark now being introduced by Manischewitz is described as a tall M followed by a small c with a smaller o enclosed therein and a small capital letter B preceding the tall M.

The complaint states that both trademarks, as well as certain package designs and labels of both companies which are claimed to be "confusingly similar," were done by Jim Nash, New York. The two companies are said to be competitive on such products as condiments, seasonings, spices, tea and coffee.

McCormick asks an injunction, an accounting, actual and punitive damages, and costs. Manischewitz has been given until July 1 to file an answer.

Impulse buying

The fact that displays of merchandise in the nation's supermarkets are becoming more and more competitive as self-service shopping alters the country's food-buying habits is borne out in a new survey conducted by the Market Research Section of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

The latest of the company's continuing surveys reveals that 66.6% of all food purchases in supermarkets are based on decisions made while the shopper is in the store. This figure represents an increase of 14.8% above the 51.8% recorded in a 1945 study.

Of the nearly 2,000 shoppers interviewed in key cities from coast to coast during the study, 65.3% keep

Inta-Roto Machine Company

specializes in
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- ★ Glue Mounting and Laminating Machines
- ★ Printing Cylinders for Rotogravure and Aniline Presses
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Maybe Inta-Roto can help you . . . we'd like to try! Our experience covers almost every phase of design, building and operation of rotogravure equipment.

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The "Easy Way" to **BOOST SALES!**



**Weinman
TRANSPARENT
BOXES and
COUNTER
DISPENSERS**

sell at "point of sale"!

Increase your sales by packaging in eye-appealing transparent plastic containers which sell themselves where it counts . . . at "point-of-sale".

Manufacturers of all types of merchandise are successfully boosting their volume with WEINMAN BOXES. Ideal for shoes, toys, bakery products, confectionery, nuts, and countless other types of merchandise.

ALSO DECORATIVE TINS IN STOCK DESIGNS. SEND FOR SAMPLES and CATALOG TODAY. We can assist you with packaging suggestions.



Weinman Brothers, INC.

MANUFACTURERS

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Designed  to meet specified requirements of product and market,  strong, good-looking Metal Edge Packaging draws attention  on dealers' shelves and counters  ...adds impact to merchandising and advertising of leading companies in 77 industries from coast to coast.

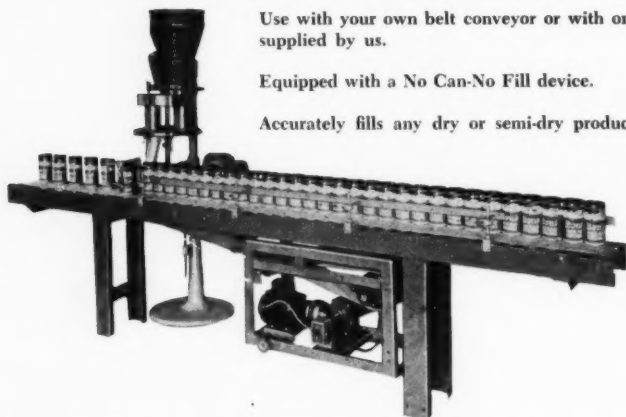
NATIONAL METAL EDGE BOX CO.

334 NORTH 12TH STREET • PHILADELPHIA 7, PA.



NOW - AN AUTOMATIC VIBRATORY FILLMASTER FOR CONTINUOUS, UNBROKEN, HIGH PRODUCTION

Make 1 Fillmaster filler do the work of 2—with only 1 operator.
Adjustable for rigid containers of any size and shape.



Use with your own belt conveyor or with one supplied by us.

Equipped with a No Can-No Fill device.

Accurately fills any dry or semi-dry product.

STUYVESANT ENGINEERING COMPANY

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Lyndhurst, New Jersey

See What They're Packing in **HOWARD-SEAL**

Controlled Polyethylene
PLASTIC BAGS
Fresh Carrots!

—and scores of other perishable items!
Just think what it could do for YOUR product

- Moisture-Proof • Fracture-Proof
- Unaffected by temperature changes

Don't confuse Howard-Seal with any other film.
Howard-Seal is controlled as to uniformity of thickness, size and sealability.

Sold by leading paper distributors

WRITE for Free Samples, full information
and low prices.

HOWARD PLASTICS

Dept. D-6

Council Bluffs, Iowa



their shopping lists in their mind and 8.5% carry partially written lists. Planned purchases were learned from a shopper entering a store. In a second interview, the shopper's purchases were checked at the cashier's register. Listed in this study are 64 classifications of purchases, including 15,873 items.

The Du Pont survey reveals that shopping decisions made in the store govern the buying of 91% of the cake sold. Other high store-decision figures include: luncheon and smoked meats, 70.8%; macaroni products, 67.4%; cookies and biscuits, 89.1%; and candy, 93.7 per cent.

Chase & Sanborn

(Article continued from page 109)
capital letters below the brand name instead of in red as formerly. The grinds are given more emphasis in red on a white band around the top of the can.

Much of the early success of Chase & Sanborn is credited to the high caliber of its salesmen, who were hand picked for their selling ability and who injected a "personal touch" into their work, thereby building up cordial relations with dealers.

Even in the early days, Chase & Sanborn was counting \$1,000,000 a year net profit from the sales of coffee and tea—a sizable amount for a firm in which no outside interests ever advanced a dollar of capital. This was the solid foundation on which Standard Brands has built one of the best-known and best-packaged brands of coffee. Today, Chase & Sanborn is one of the substantial contributors to Standard Brands' reported annual sales of \$263,000,000.

CREDITS: Regular coffee—lithographed vacuum cans and vacuum-filling equipment, American Can Co., New York, and Continental Can Co., New York. Automatic weighing equipment, Parsons Automatic Scale Co., Berkeley, Calif., and Pneumatic Scale Corp., Ltd., North Quincy, Mass. Instant coffee—jars, Anchor Hocking Glass Corp., Lancaster, Ohio, and Owens-Illinois Glass Co., Toledo, Ohio; jar caps, Anchor Hocking; labels, Bonton Press, New York; vacuum-filling machine (Carter-Vac), General Mills, Inc., Minneapolis, Minn.; capping equipment, Consolidated Packaging Machinery Corp., Buffalo, N. Y.; upright labeler, Standard-Knapp, Div. Hartford-Empire Co., Portland, Conn. All case loaders, Standard-Knapp.



Labelling Problems?

ANSWER:

The NEW LABEL CHIEF

- Perfect Registration
- Quick Changeover to Wide Range of Label and Container Sizes
- "Glue-Sprays" Labels or Moistens Pre-gummed Labels
- Automatic & Semi-automatic Models

Write for literature!

VAC-SPRAY Machine Corp.

609-22nd Ave. N. E. Minneapolis 13, Minnesota



Compounded Especially for MODERN PACKAGES

Give us your coating problem. We guarantee you an answer based on your conditions, and not just a standardized formula.

THE WATSON-STANDARD CO.

225 Galveston Ave.

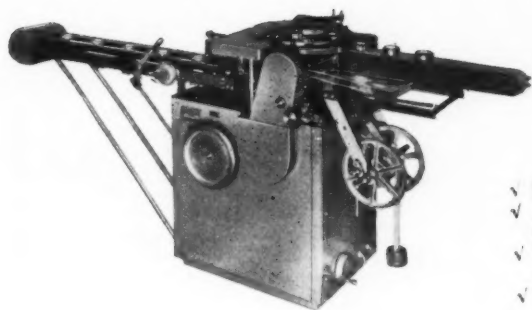
Pittsburgh 30, Pa.

"PERFECT PACKAGING"

WRAP-KING . . .

AT LOWER UNIT COST.

CUTS PACKAGING COSTS . . . 75%!



WRAP-KING can show you how! "Perfect Packaging" is the answer. No waste . . . faster wrapping . . . more efficient. Yes . . . whatever your packaging needs may be, oval . . . round . . . oblong . . . any disc shape . . . or even square, WRAP-KING is the answer. Completely automatic, this miracle machine will brighten your production problems by appearance and performance. WRAP-KING can save you many man hours, as well as up to 20% of material costs.

Check these outstanding features . . .

- ✓ Perfect uniform packaging! ✓ Non-injurious to fragiles!
- ✓ Product protection, by heat or non-heat sealing material! ✓ Quick change over time!
- ✓ Simplicity in operation . . . Minimum maintenance care!
- ✓ WRAP-KING requires less floor space than the average size office desk!
- ✓ Interchangeable parts supplied, for every packaging need!

Our representative will be happy to discuss your packaging problem with you . . .

Why not call or write him today!



"Perfect Packaging"

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West Springfield, Massachusetts

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70 W. Houston St.
Albion 4-0180

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Lanham Machinery Co.
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Dearborn 8516

CHICAGO, ILL.
Diederichs & Griffin Co.
4753 Broadway
Longbeach 1-3300

CLAREMONT

Flock

Packaging's Magic Carpet

In its most popular end-use form, you find Claremont Flock surfaced to papers and boxboards. To achieve the various, arresting effects required by the paper processors, Claremont furnishes this Flock to the paper industry under three classifications ... cotton — rayon — wool ... and in a rainbow scope of colors ranging from brilliant hues to pastel shades. These

colors, carefully formulated and controlled for duplicating likeness, are dyed into the fibres during the flock manufacturing process so that a scoopful of fluffy Flock is a scoopful of sales-appealing color! Paper stocks coated with fascinating Claremont Flock, acquire packaging glamour—and because of the luxury they simulate, become variously identified as Velour, Velvet or Suede Papers. Papers processed with Claremont Cotton Flock are lower priced, though brilliant, are less sparkling than those cloaked with Rayon ... Those finished with Wool Flock are hardiest. All in the hands of imaginative designers, serve as a magic carpet with which to create new package allure. Packaging interests are invited to contact Claremont. Color cards, samples and complete details available upon inquiry.

CLAREMONT
WASTE MFG. CO.
CLAREMONT, N. H.

CLAREMONT FLOCK...the Plush that Sells!

To keep papers dry

A long-standing need among newspapers with a large suburban circulation has been an adequate method of delivering dry newspapers to subscribers in inclement weather. To



meet this need, a special, low-cost, waxed newspaper bag has been developed.

The bags, which can be printed in three colors, are easy to use and insure complete protection of the papers, it is claimed. Ends of the bags are twisted when water is on the ground; when it is just raining, the ends of the bags are merely tucked in. Said to cost no more than waxed wrappers and ties, the bags are tied in packages of 100 and packaged in 500-bag lots.

Carriers, subscribers, as well as the newspapers are reported to favor the new waxed newspaper bags.

CREDIT: Bags, Union Bag & Paper Corp., New York.

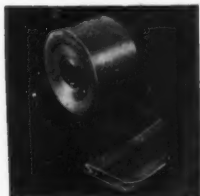
Western exposition

Plans are progressing rapidly for the 1950 Western Packaging and Materials Handling Exposition and its concurrent conference on Packaging, Packing and Shipping, to be held Aug. 16-18 in the Civic Auditorium, San Francisco, according to Kenneth K. Dean, general chairman.

Selection of the date and location are in accordance with the wishes of the majority of the exhibitors in last year's show, which drew more than 6,000 registrants. The 1951 exposition will probably be held in Los

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POLYETHYLENE PACKAGING FILM



WIDTHS 3" TO 54"

MADE ONLY BY EXTRUDERS, INC.
ON THE WEST COAST

STANDARD WIDTHS AND GAUGES FOR IMMEDIATE SHIPMENT

widths 3" to 54"
gauges 1½ to 8 mils
shapes layflat tubing
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flat film (single ply)

Available on special order in colors, (opaque or transparent) and in special widths and gauges.

Also, vinyl, acrylonitrile vinyl and S-polymer films.



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ball bearings
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HAYSEN-WRAPPED

for IMPRINTING CODING

THE MULTIPRESS

Finest high speed small unit made for every type of imprinting on folding cartons, paper products, booklets, labels. 6500 impressions per hour. Ideal for imprinting batch numbers, blockouts, flavors, colors, prices, codes, dates, sizes. MULTIPRESS solves your coding problems!



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Better wrapping at lower cost by using a Hayssen.
Fully automatic—it replaces costly hand wrapping.
Provides exact registration of printed overwraps.
Operates quietly at a high production rate.
Backed by 40 years' wrapping machine experience.

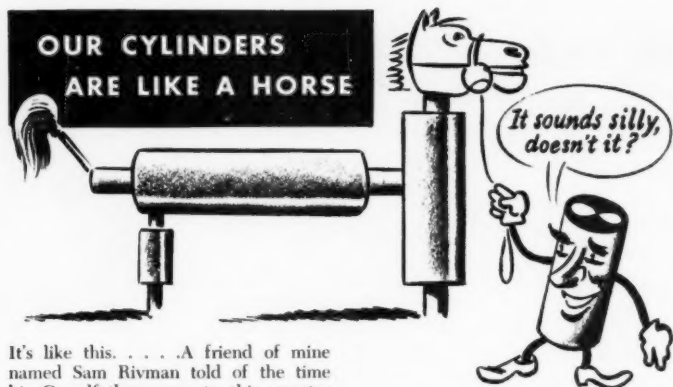
WRITE TODAY for full information and the name of your Hayssen Representative.

HAYSEN MFG. COMPANY • SHEBOYGAN, WIS.

Hayssen
ELECTRIC EYE
WRAPPING MACHINES

IT PAYS TO WRAP
THE HAYSEN WAY





It's like this. . . . A friend of mine named Sam Rivman told of the time his Grandfather came to this country and settled in Jefferson, New York, and bought a farm there. Grandpa looked around for a Russian horse to help him with his farming since he couldn't speak English. He couldn't find one in the whole State of New York, so he decided to buy an American horse. He taught the horse to respond to his Rus-

sian commands such as "Dovoy" for go and "Shtoy" for stop and "Nazait" for back up.

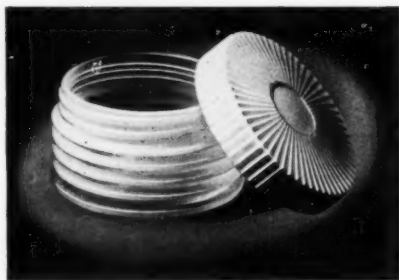
So it is with our cylinders. . . You can print in any language with them and like Grandpa Rivman's horse, they'll give long and faithful service with a minimum of care.

Makers of plate cylinders for aniline printing, special light weight cylinders for gravure printing, heating and chilling rollers, and gears $\frac{1}{4}$ C.P. and 1:1 P. Also storage racks for rollers.

All work is unconditionally guaranteed. Inquires will be answered promptly. "We make good rollers, but the best things we make are friends"

ALBERT WEISS & CO. 151-153 West 21st Street, New York 11, N. Y.

Attractive New Sell-on-Sight Design



POLYETHYLENE JARS

1½ oz. and 2 oz. capacity

Modern, lightweight, unbreakable

Natural polyethylene always in stock; colors available on order
Ideal sales maker for creams, cosmetics, ointments, salves, fitted traveling cases, etc.
Appealing assortment of urea and brass closures available.

1½ oz. capacity	58-400 screw cap finish
2 oz. capacity	63-400 screw cap finish

SEND FOR SAMPLES AND PRICES

Inquiries Invited

J. RABINOWITZ & SONS, Inc.

2 Hanson Place

Brooklyn 17, N. Y.

Angeles, it is said, providing a suitable auditorium can be obtained. According to Clapp & Poliak, Inc., managers of the Western exposition: "We agree that a show should travel in order to reach as many potential customers as possible throughout a region. However, the availability of a suitable auditorium, centrally located and within easy reach of major hotels, is an important factor in the success of any show, especially one as large as the Western Packaging & Materials Handling Exposition. It has been our experience that attendance decreases as the distance to a show from hotels increases, even though you charter buses to carry visitors there and back."

Fractional packages

(This article continued from page 95)
whole problem, of course, would have to start with a new study of consumer preferences.

The present period of packaging is one in which many refinements will be made to offer new consumer conveniences. For too long, emphasis has been placed almost entirely on attractiveness. The successful manufacturer today is the one who is adopting packaging that, in addition to attractiveness, is making his product easier to use, keeps it fresh longer and offers the right quantity at a price the shopper is willing to pay.

The fractional package is worthy of careful consideration as a means of providing one or all of these advantages.

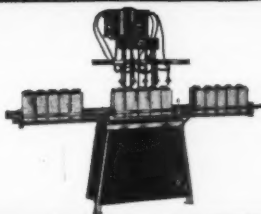
CREDITS: **Weston's Big 4**—Cartons, The Flintkote Co., Los Angeles, Calif.; wrapping machine, Battle Creek Bread Wrapping Machine Co., Battle Creek, Mich. **Puritan Marshmallows**—Trays, Container Corp. of America, Chicago; carton set-up machines, U. S. Automatic Box Machinery Co., Inc., Roslindale, Boston, Mass.; wrapping machine, Package Machinery Co., Springfield, Mass. **Kellogg**—Printed cellophane wrap, Shellmar Products Corp., Mt. Vernon, Ohio; wrapping machine, Battle Creek Bread Wrapping Machine Co. **Tritzels**—Cartons, Barigis Bros. Co., Ilchester, Md.; laminated-glassine bags, Paramount Paper Products Co., Philadelphia, Pa. **Crackin' Good**—Carton, Empire Box Corp., Garfield, N. J.; wrapping machine, Package Machinery Co. **Cott**—One-way bottles and shipping cases (Ty-Pak), Owens-Illinois Glass Co., Toledo, Ohio; foil labels, Brooks Bank Note Co., Springfield, Mass.

This Efficient Filling Can Be Yours

It's rapid!

It's accurate!

Send for
Descriptive
Bulletin



PACKER GRAVITY LIQUID FILLING MACHINE

Fills All Sizes of Bottles and Cans
From 1/2 Pints to Gallons

Here's the precision engineered machine you've been searching for... For every filling requirement... For maximum production... For lowest operation cost.

- Accurate, automatic overflow. Will not collapse or bulge cans.
- Available in 6, 8, 10, or 12 spouts.
- Fills thin, foamy and viscous liquids, hot or cold.
- Rapid size change.
- Easy to clean.
- Speeds up to 45 containers per minute.
- Liquid contact parts of stainless steel and resistant materials.
- Adaptable to Vacuum Filling Method.

PACKER MACHINERY CORP.

34 Irving Place, New York 3, New York

PORTABLE AND DESK MODEL MICROMETERS with easy-to-read dials



CADY
Hand Model

has cast aluminum frame, shaped to fit hand; convenient trigger raises and lowers anvil; capacity is thickness up to 1/2"; horizontal glass covered 3" diam. dial graduated 1/100ths of an inch. For use throughout the plant or when traveling. Extremely accurate; direct reading; no computing. Spherical end anvils available on order.

For caliper thicknesses of Papers, Boards, Foils, Felt, Glass, Metals, Plastics, Rubber; Sheet stock or Finished Products with thicknesses to one-half inch.

CADY **Standard Model**

Registers thickness to 1/16"; available with 4, 6, 12 or 18" throats. Glass covered dial is 6" diameter; graduations 1/100ths inch.

CADY **Dead Weight Model**

Dead Weight Anvil descends by gravity for extremely uniform pressure and completely accurate caliper. 6" diameter glass covered dial; 1/100ths graduations.



Write for data and prices: Burst Strength Testers, Micrometers, Basis Weight Scales.
E. J. CADY & COMPANY, 134 N. LaSALLE ST., CHICAGO 2, ILL.

JUNE 1950

RESINA CAPPERS

A model for every purpose...
A speed for every need!



STANDARD
single Head
Model

CAPACITY
UP TO 60
PER MINUTE



HIGH SPEED
straight
line
screw capper

FLEXIBLE
FAST
FULLY
AUTOMATIC



SEMI
AUTOMATIC CAPPER

Not an ordinary
cap tightener
but a real
Semi Automatic
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Requires no
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NO. 2 SIMPLEX AUTOMATIC BAG MACHINE, with electric eye attachment, practically new. Will sell outright or trade for No. 7 Simplex Bag Machine, or any other make machine that will make bags sealed on three sides. Box No. 972, Modern Packaging.

AT REDUCED PRICES—Pony M. MX and ML Labelers, Knapp E adj. to 1 gal. Wraparound Labeler, for jars with ears. Also Burt Labelers, Filler 1, 2, 4, and 8 Head S.S. Fillers, Robinson 800 lb. stainless steel Dry Powder Mixer, Stokes & Smith G4 Auger Powder Filler, Triangle Model SHA Auto, Net Weigher and Carton Sealer, Triangle U Auger, C2C and A60A Electric Pak Fillers, Horis S.S. Rotary Gravity Filler, Ceco Auto, Carton Closing Machine, Standard Knapp No. 429 Carton Sealer, Pneumatic Scale Auto, Tite-Wrappers, Package EA and FA20, Hayssen 3-7, Auto, Wrappers, Tell Us Your Requirements, Union Standard Equipment Company, 318-322 Lafayette Street, New York 12, New York. CAnal 6-5335

FOR SALE—Double Head Resins screw capping machine, 120 per minute capacity, Model HS-233, in A-1 condition. Inquire Beer Products Co., 65½ E. Gay St., Columbus, Ohio.

FOR SALE, Ross automatic carton forming machine adaptable for making cartons ranging in size from 1½" x 3" x 6½" to 2½" x 6" x 11½", complete with motor and drive. Bonner Packing Co., Briz Bldg., Fresno, California.

FOR SALE: 1—Standard Knapp #429 self-adjusting Guer-Sealer, minimum 3½" high, 7½" wide, maximum 10" high, 13" wide, 25' Compression Unit. Priced at less than half new cost. 2—Stokes and Smith auger G1 Powder Fillers, 1—Knapp Wraparound 3B Labeller. Only a partial list. Send us your inquiries. Consolidated Products Co., Inc., 16-20 Park Row, New York 7, New York. Phone: BArclay 7-0600.

WRAPPING MACHINE FOR SALE—Miller, excellent condition. Model MPU-15, Serial 6843-47. Cellophane wrapper of many various size machines. This machine was made after the war, was used little and is being sold at a drastic discount because of liquidation. Thos. A. Walsh Mfg. Co., 3852 Farnham Street, Omaha 3, Nebraska.

ONE MODEL A-3901-12 "CECO" Carton Sealing Machine, Serial #1503 equipped with 3' Feeding Conveyor, 8" Carton Pusher Spacing, 12" Compression Unit, Supporting Rails, ½ H.P. 220-440 volt, 60 cycle, 3 Phase Motor, no upper gluing rollers. Original price \$2,270.00. For further details or inspection, write R. M. Burns, P. R. Mallory & Co., Inc., North Tarrytown, New York, or call Tarrytown 4-0940.

FOR SALE, Packomatic dual stool carton sealer for packaging 11 and 15 oz. cartons, complete with compression units, motors, conveyors and presses. Bonner Packing Co., Briz Bldg., Fresno, California.

HELP WANTED

MANUFACTURERS REPRESENTATIVES wanted for firm which extrudes and converts polyethylene film. Complete line of film, tubing, sheets, bags, liners, printing. Must be reputable and capable of volume business. Sales to be made to direct users and jobbers. Territorial arrangements. Commission basis. Give complete résumé of experience in first letter. Box 971, Modern Packaging.

EXECUTIVE—Old established reputable Eastern concern, establishing Midwest plant, needs services of a practical general manager, acquainted with production and sales of modern equipped Folding Box Plant. Excellent salary arrangements plus profits participating plan. Prefer man with Midwest establishment. All replies strictly confidential. Box 969, Modern Packaging.

FOLDING CARTON Plant Philadelphia area has openings for experienced Miehle cutting and creasing Pressman and Stauder or International Line Glue Machine setter. Excellent opportunity for advancement and steady work for right men. Write full details. Box 974 Modern Packaging Corp.

ENGINEER—25 to 40—capable of assuming executive responsibilities with small progressive organization having a world wide reputation. Position requires background in mechanical design and production control—will also involve sales work. Individual must have versatility and adaptability. Experience in paper converting machinery and printing press field desirable but not essential. Submit complete résumé and snapshot. Our employees know of this ad. Box No. 968, Modern Packaging.

TOP RATE SALESMAN wanted for sale of transparent bags (excluding cellophane) by converter located in Middle Atlantic State. Must be aggressive, experienced, and have following. Excellent opportunity for the right person. Answer Box 967, Modern Packaging.

WANTED: Ambitious Salesman experienced in folding cartons. Excellent opportunity to advance to Sales Manager. Midwest Location. Give Experience and Personal History in reply. Box 975, Modern Packaging.

PACKAGING SALESMAN to sell complete line of transparent acetate boxes, counter dispensers, cans. Commission basis. Weinman Brothers, Inc. Factory: 3260 W. Grand Ave., Chicago 51.

SITUATIONS WANTED

SALES EXECUTIVE AVAILABLE: Cellophane, Pliofilm, Polythene, Acetate, Paper Specialties. Presently employed with leading converter in charge of all Company promotions and sales management. Interested making change, same or allied field. Experienced National Consumer Package field and production problems. Thoroughly capable selling, directing National sales of converted films, printed or plain. Free to locate anywhere. Write Box 973, Modern Packaging.

MISCELLANEOUS

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

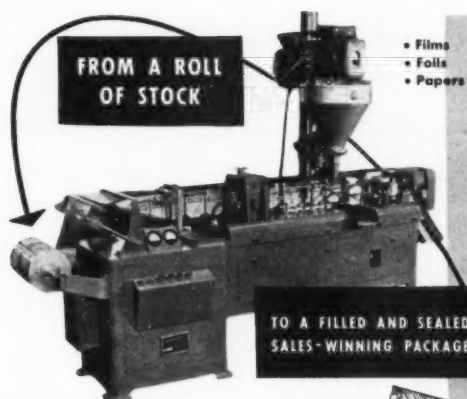
NEW PRODUCTS WANTED—Manufacturer experienced in metal stamping and die casting having contacts in the oil, chemical and food industries seeks new products for entry into packaging field. Box 970, Modern Packaging.

ADDITIONAL LINES WANTED: By sales organization now selling Dairy, Ice Cream, Packing Houses and Moist Food industries in St. Louis and Indianapolis trading areas. We are in position to give you cooperation and aggressive coverage by experienced men and will add to manpower, if necessary, to give proper representation. Inland Container, Inc., 2120 So. Third St., St. Louis, Mo.

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For further information address Classified Advertising Department, Modern Packaging, 122 E. 42nd St., N. Y. 17, N. Y.



AUTOMATICALLY... AT LOW COST!

Here is the cost saving, streamlined way to package your product for maximum economy and plus sales!

Base machine makes a pouch style bag, opens it for filling, seals it, and discharges a completed package. Design allows for selection of the best filling equipment available for your product. Special feeders for unusual items. Standard unit makes bags from heat sealing papers, foils, cellophane, laminations, etc. Special model available for polyethylene.

Whether your product is liquid, powder, solid, multiple items, or requires packaging under nitrogen gas, the Bartelt Machine will handle your needs. Write for details today.

- 1 Makes the bag from a roll of paper, film, or foil.
- 2 Fills the bag by count, by volume, by auger, or by special feeders.
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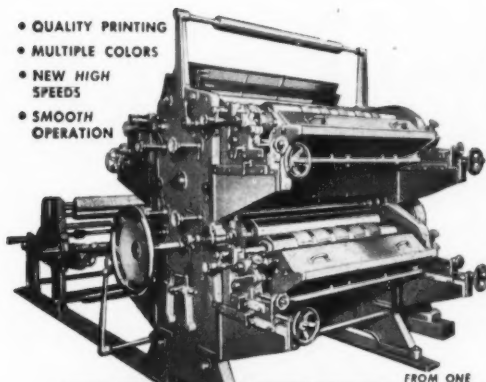
Modern
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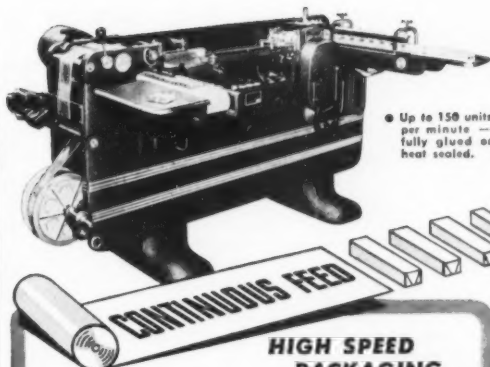
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Each month, the Readers' Service Department of MODERN PACKAGING answers scores of questions for our readers. Questions range from simple requests for information about the manufacturer of a can, machine or box to requests which demand detailed, technical answers.

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for attending to questions which are particular "sticklers."

If you have any questions, feel free to forward them. There is no charge or obligation for this service. Address—Readers' Service Department, MODERN PACKAGING. A complete reply to your inquiry will be forthcoming.

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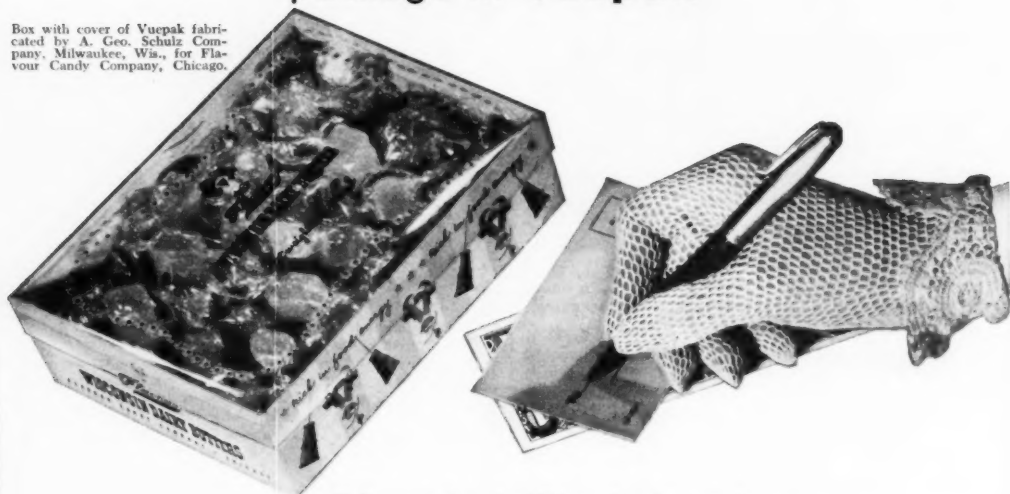
A Breshin Publication

122 East 42nd Street

New York 17, N. Y.

for **your** pot of gold package in **Vuepak**

Box with cover of Vuepak fabricated by A. Geo. Schulz Company, Milwaukee, Wis., for Flavour Candy Company, Chicago.



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Whether you want to develop new markets, or boost profits in old ones, packages of Vuepak can help you dress-up your product for best selling results. Store tests show merchandise packaged in transparent Vuepak outsells items in opaque packages as much as six to one.

For your package, Vuepak is sturdy, light in weight, and economical to fabricate, pack and ship. It may be printed, embossed, folded, or combined with other materials.

Contact your box supplier today, or write Monsanto for new ideas in packaging with Vuepak for more profit. The coupon is for your convenience.

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the tray...



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